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MASSIVE COLLAPSE OF THE LUNG

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Massive collapse of the lung is an acute pulmonary condition produced when one or more normally aerated lobes suddenly lose their air contents and collapse. The condition was first described by William Pasteur, in 1890, in cases of post-diphtheritic paralysis of the diaphragm and intercostal muscles. Again in 1908, in the Bradshaw lecture, Pasteur advanced the theory that the condition was produced by loss of respiratory power, caused by paralysis of the muscles of respiration or by reflex inhibition of these muscles, followed by absorption of air in the lung. He reported in 1914 16 cases following 2,000 abdominal operations, and also after cases of injury to the chest wall.

Elliott and Dingley in 1914 reported 11 cases of abdominal operation followed by massive collapse. They believed that immobilization of the diaphragm and shallow respiration allow collapse of the bronchioles to produce this condition. In 1918 Crymble reported 15 cases following gun shot wounds. Sir John Rose Bradford in 1918 and 1920 reported, in cases of war wounds, followed by massive collapse, no post-mortem evidence of bronchial obstruction or pleural effusion which might interfere with aeration of the lung. He

believed that the cause of massive collapse was reflex spasm of the bronchioles. His cases included injuries to the chest, trunk, fractures of the pelvis and femur, gun shot wounds of the chest, and one case of a trivial wound of the chest followed by collapse of the opposite lung. Some injury was present in all his cases, and he believed that posture and insufficient expansion also play a vital role in the production of this condition.

Briscoe in 1920 thought that massive collapse was due to inflammation in the muscles of the diaphragm behind the peritoneum. Scrimger in 1921 reported seven post-operative cases among 540 abdominal and rectal operations. These operations were mostly for hernia and appendectomy.

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Elwyn and Girsdansky in 1922 reported a case of massive collapse after stab wound in the abdomen. Regan in 1924 reported one case following poliomyelitis. Ritvo in the same year gave a very excellent description of the condition and reported a case after operation following relief of adhesions in the right lower quadrant after appendectomy. Leopold in the same year found four cases in sixteen days, following ether anaesthesia for operation on inguinal hernia. Scott in 1925 made a complete study of all reported cases; sixty-four cases were found in the literature and four more were added, all of which were post-operative. Jackson and Lee in this year called attention to the relation between massive collapse and obstruction of the bronchi by foreign bodies, and believed that intrabronchial obstruction was the most important factor in the production of this condition. Churchill in this year added six typical cases of post-operative atelectasis, two following operations under local anaesthesia. He thought that massive collapse results from the combined action of weakened respiratory force and bronchial obstruction, and believes that the various factors shown by the numerous etiological agents can all be correlated under this hypothesis. Sante in 1927 and 1928 considers that reflex constriction of the bronchioles is the principal causal factor. Soloff in 1928 reported a case in a child aged two which developed collapse of the lung without any predisposing trauma but who had early pulmonary tuberculosis. Kletz in 1927 reported a case associated with acute meningitis.

SYMPTOMS

The symptoms as a rule usually occur following some injury or surgical operation and may develop regardless of any anaesthetic used. It may, however, occur without an apparent predisposing cause. The onset usually is within 24 hours after operation or injury. A sudden pain in the chest accompanied by cough and fairly profuse expectoration follows. The respiration and pulse become rapid and cyanosis is often present. There is a moderate but sudden sharp rise in temperature, and the leukocyte count is usually increased. At this time the physical examination may reveal a dull area in some part of the lung corresponding generally to an entire lobe. The heart and mediastinum are displaced towards the affected side, and the breath sounds over the dull area are diminished or suppressed. Bronchial breathing is

usually heard over the affected area. The ribs are more oblique and movement of the diaphragm is not seen. There may be some doubt as regards the physical findings on account of the difficulty in examining so restless a patient. Here the roentgen-ray which may be used in bed without disturbing the patient, will offer decisive evidence of the condition. The radiograms show an area of opacity not unlike a pneumonia in appearance. It corresponds to the outline of one or more lobes in area. Under the fluoroscope the diaphragm is high in position, or if the lower lobe is involved, its outline cannot be distinguished on account of it fusing with the opacity in the lung. Where seen it is high in position, and immovable. The trachea always and the heart, mediastinum usually, are displaced towards the affected side, which to my knowledge never is observed in pneumonia. This displacement is so marked that there can be no doubt as to the abnormal position of the mediastinum. The opaque area in the lung is of even density when seen early, but later may show some mottling. The density of the opaque area is usually less than that of the ribs, and less than fluid. The opposite lung will show some compensatory emphysema, with widened intercostal spaces and low position of the diaphragm.

REPORT OF CASE

T. G., age 14, was operated April 30, 1928, for acute appendicitis. One hour after the operation he was very restless and coughed considerably. The respiration was rapid, with dyspnea, and there was cyanosis of the finger nails. A dull resonance over the left chest, with almost complete lagging during respiration, was noted. Tubular or bronchial breathing over the left chest was noted on auscultation. The apex beat was between the nipple line and anterior axillary line. Radiograms made with the portable showed an opacity of the left lung field, increasingly greater in the lower lobe. The heart was displaced towards the left quite definitely. The left diaphragm is about three-fourths of an inch higher than the right, and the trachea is displaced towards the left side. Further X-rays were made the following day, and show a small amount of air in the left upper lobe. The trachea and heart were still displaced and the left diaphragm not definitely made out.

There is an increase in density in the lower half of the left lung field. On May 5, four days later, the opacity of the left lung is clearing up. The heart is still displaced slightly to the left. More air is seen in the upper part of the left lung. Patient went on to an uneventful recovery. He returned one month later, and there was free movement of the diaphragm on the side affected. The temperature reached 103.8 on the day of onset, but dropped to 99.6 the following day. The respiration reached 50 per minute following the collapse, and the pulse 150. On May 5, after the

symptoms had subsided, the consultant made the following note: "There is a small area of bronchial breathing with altered voice sounds, near the angle of the scapula, in the posterior portion of the left lung. There is an increase in the air content in the upper portion of the left lung. The apex beat is gradually coming back towards the right, and is now in the nipple line."

The white count, 4/29/28, was 16,200, with 80 per cent polys. The next day it was 10,400, with 75 per cent polys. The following day it was 11,200, with 73 per cent polys., and four days later, 10,600. The anaesthesia used was ether, but the amount administered was not charted. The operation began at 1:30 a. m., and ended at 2:05 a. m., with a total elapse of time of 35 minutes.

Case 2. (Courtesy of Dr. R. H. Denham)—C. M., aged 47, was operated on under ethelene March 29, 1927, for a right inguinal hernia. Within 24 hours after operation, the patient suddenly complained of sudden pain in the upper part of the right chest. The respiration became rapid, the temperature rose to 101.4, and the pulse was 140 per minute. He had a very anxious expression and was extremely dyspnoeic. I saw the roentgenograms in consultation and found the upper third of the right lung field opaque, the heart and particularly the upper mediastinum and trachea displaced markedly toward the affected area. The diaphragm on this side was high, and the intercostal spaces narrowed. The symptoms lasted about 24 hours and then quickly subsided. A subsequent radiogram, made the following day, showed the condition to have cleared up entirely, with the diaphragm and trachea having returned to their normal position. Patient made an uneventful recovery.

DISCUSSION OF THEORIES

Pasteur, as above stated, believed that paralysis of the diaphragm would cause a collapse of the lung. Sante has shown that phrenectomy, frequently used as a therapeutic measure in cases of tuberculosis, never causes such an atelectasis. That the collapse is not due to pressure of the compressed ribs is shown by autopsy findings where the lung is collapsed, while the chest wall is not. The theory of infection of the diaphragm cannot explain the sudden collapse of the lung following gun shot wounds. Lichtheim in 1879 artificially produced collapse of the lung by introduction of laminaria plugs into the bronchi. These swelled, producing total occlusion of the bronchi with resulting collapse. He found, however, that collapse of the lung did not follow if the pulmonary vessels to this area were tied. The introduction of a foreign body into the bronchus must completely occlude the bronchus before collapse occurs. It is probable that normally numerous areas in the lung are atelectatic, but are relieved by coughing. The introduction of lipiodol into the bronchi may cause collapse as reported by Hickey. Aspirated secretions, following operations

on the throat and head, have to my knowledge never produced a collapse of the lung. In no case of massive collapse has there been found at autopsy an obstruction in the bronchioles. The theory of Bradford, supported by Sante, that the reflex spasm of the bronchioles was a causal factor does not explain why a single lobe is involved, and why it does not occur on both sides. The theory advanced by Churchill seems to be the most logical. He believes that the collapse depends upon the loss of respiratory power from any cause, such as shock, reflex inhibition, or paralysis of the diaphragm and intercostals, infection or aspiration, is probably the beginning of this condition. There then may occur a more rapid alveolar absorption of air than is taken in through the bronchi. Partial collapse of the bronchi and bronchioles occurs. It would seem logical to assume that where the bronchiolar epithelium comes in contact with other epithelium that it can not distinguish between that and a foreign body. It reacts in the only manner known to it, namely, to produce mucus. With the formation of mucus, the bronchus or bronchiole becomes totally occluded. The absorption of air, distal to the plug, readily follows, which tends to collapse the lung, and suck the mucous plug still further into the bronchus. The aspiration of the plug, as done by Jackson, or by manipulation of the patient, with coughing, will serve to restore the atelectatic area to function.

DIFFERENTIAL DIAGNOSIS

Pneumonia is the most common disease which might be confused with massive collapse. The physical sign of displacement of the mediastinum towards the afflicted side does not occur in pneumonia and the characteristic roentgen findings make the differentiation positive.

Tumors may fill one side of the chest completely, but tend to displace the trachea and heart away from the mass. They never cause collapse unless they occlude a bronchus.

Chronic interstitial pneumonia may displace the heart towards the affected side, but the marked scar tissue formation seen on the roentgenogram, together with the totally different history and onset, should offer sufficient differentiation.

Pleural effusion displaces the heart away from the area of dullness or opacity and only draws the heart to the affected side in old cases where the pleura becomes thickened and the fluid partly absorbed.

TREATMENT

The patient suspected of massive collapse should have the diagnosis established by the roentgen ray. Then he should be rolled onto the uninvolved side and instructed to cough. Direct fluoroscopic observation will usually witness the rapid inflation of the affected area in a very short time. If this procedure fails, bronchoscopy should be done to eliminate the possibility of bronchial obstruction by tumor or foreign body. Any bronchial obstruction should then be removed, if possible. Inasmuch as these cases are most frequently observed following surgical operation, forced deep breathing at the conclusion of the anaesthetic by giving Co_2 will hyper-ventilate the lung and should be of value in the prevention of this condition.

SUMMARY

1. Massive collapse appears to be a distinct clinical entity.
2. The chief findings are sudden onset with loss of aeration of one or more lobes of a lung.
3. It most commonly follows injuries and operations below the diaphragm and in the chest, but is seldom seen after operation on the head and neck. It may occur without injury and occasionally from trivial injuries and where no anaesthesia, either local or general, has been used.
4. The roentgen picture is that of a dense opacity of the affected area with displacement of the chest wall, diaphragm, heart and trachea towards the area of opacity to fill in the space caused by the shrinking of the affected lung.

JAVA APE-MAN LOSING HIS AGE

Pithecanthropus, the ape-man of Java, about whose skull, teeth and thighbone evolutionary battles have raged for more than a generation, is losing his age. He is younger than the much more nearly "modern" Piltown man, or dawn-man, of Britain, in the opinion of Dr. Henry Fairfield Osborn, president of the American Museum of Natural History, who has reported his findings to the technical journal, *Science*. Dr. Osborn was led to his conclusions by a study of the animal bones and teeth found associated with the two skulls. Those found in the same neighborhood as the Pithecanthropus remains were of "Middle Pleistocene, and certainly not Lower Pleistocene, still less Pliocene." Setting the ape-man forward to Middle Pleistocene times brings him up to the time when the glaciers of the ice age covered most of Europe and of eastern North America; the first age assigned to him. Late Pliocene, preceded the glaciers.

Dr. Osborn states that he has written to a leading German scientist who has examined the animal bones to check over his findings again, because "unless it can be challenged it proves that

5. The most logical theory seems to be a loss of respiratory power from any cause—associated with reflex inhibition of the muscles of respiration and possibly a spasm of the bronchioles followed by a plugging of the bronchus with mucus.

6. The treatment consists in hyper-ventilation as prophylaxis—forceful expulsion of mucus by coughing or bronchoscopic removal.

7. It is probable that these cases are more common than reported and often diagnosed pneumonia.

8. The prognosis is usually good for complete recovery.

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Pithecanthropus is another instance of the survival of a very primitive type of mammal in a primitive forested environment where food was plenty, there was little need of clothing, and safety was assured by concealment or flight rather than by combat with weapons." The revolutionary setting back of the English Piltown man, or dawn-man, to an earlier date than the ape-man of Java, was also based on a study of bones. The remains of this being, a decided low-brow but still much more like modern man than Pithecanthropus was, were found in a gravel-pit, associated with the bones of quadrupeds of Early Pleistocene and Late Pliocene date. The mixture of animal bones of two geological periods indicates that the gravel-pit was formed by outwash from older gravel layers, which makes the actual date of Piltown man uncertain, but, in the opinion of Dr. Osborn, undoubtedly earlier than Pithecanthropus.

"Thus," he concludes, "in the course of the last 18 years Eosanthropus and Pithecanthropus have changed places in the geologic time scale."—Science Service.

THE PHYSIOLOGY OF THE VASCULAR NERVOUS SYSTEM AND ITS CLINICAL SIGNIFICANCE

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The classical experiments of Claude Bernard (1851) established the existence of two sets of nerve fibers to the blood vessels. He observed not only that section of the cervical sympathetic trunk produced a dilatation of the arteries in the ear of a rabbit, but also that stimulation of the distal cut ends of the sympathetic trunk caused blanching (vasoconstriction). His observations have been confirmed by numerous experiments so that the presence of vasomotor fibers of a vasoconstrictor and vasodilator type are universally recognized.

While the physiological effect of the vasomotor fibers upon the blood vessels has been well established, yet the manner of distribution of the fibers is not so well understood. However, in recent years as the result of clinical observations upon persons operated upon for various vascular conditions in which the surgical attack was upon the vascular sympathetic nerves, a better understanding of the distribution of the vasomotor nerve fibers has been arrived at.

The most recent conception indicates that the distribution of these fibers with their relays is identical with the distribution of the vegetative nerve fibers to other visceral structures, i. e., those fibers which transmit inhibitory (vasodilator) impulses relay in the chain ganglia of the sympathetic system whereas those which transmit motor (vasoconstrictor) impulses relay in ganglia intrinsic to or on the vascular axis. In modern textbooks of human anatomy ganglia cells are described as existing in the plexuses of the subclavian arteries, the arch of the aorta, the thoracic and abdominal aortae, and the iliac arteries. The carotid body is doubtless the highest or the head ganglia of the vascular nerve supply to the brain, head and thyroid gland. This structure contains sympathetic nerve ganglion cells, and fibers pass from it up into the internal carotid nerve and from it down to the superior thyroid artery plexus. The stimulation of the nerve fibers from the carotid body as well as those which pass to the ganglia cells of the vascular plexuses cause constriction of the blood vessels, whereas stimulation of the fibers which relay in the ganglia of the sympathetic trunks produce dilatation of the blood vessels supplied by them. The diagram I shows in a schematic way the present conception of the course taken by the vasomotor fibers which arise from the thoracic portion of the spinal cord.

While a great deal of information has been obtained by laboratory experimenta-

tion upon the vasomotor system yet our most conclusive proof has been obtained from clinical observation after interruption of the vasoconstrictor fibers by surgical methods; but further observations are necessary in order to determine more definitely the course followed by the vasodilator fibers. Clinical evidence indicates that they run in and as plexuses around the peripheral nerves.

That vasomotor fibers run for a greater or less distance upon the blood vessels was demonstrated by Lord Lister over seventy years ago when he severed all of the soft parts in the leg of a dog and observed that the blood vessels did not become paralyzed.

Jaboulay, Jonesco and Leriche were the first to observe clinically that interruption of the sympathetic nerves by both the ablation of the sympathetic ganglia, and stripping of the nerve plexures from the arteries produced dilatation of the arteries of the part supplied by the nerve structures thus destroyed.

The present idea is therefore that the vasoconstrictor fibers pass from the ventral horn cells of the spinal cord through the anterior root of the spinal nerves then leave the anterior root as white rami and pass to and through the sympathetic ganglia to intrinsic ganglia upon the vascular axis. Fibers arising from the ganglia cells of the vascular axis course upon the artery by forming plexuses about them and the fibers finally terminate on the capillaries. The vasodilator fibers arise from the ventral horn cells of the spinal cord and pass out in the ventral roots of the spinal nerves and leave the ventral roots as white rami and enter and relay in the ganglia of the sympathetic chains and from the cells of the chain ganglia fibers arise which pass out as gray rami. Those to the visceral blood vessels pass with the splanchnic and other visceral nerves to the viscera and there pass on to the blood vessels. The

vasodilator fibers destined to the blood vessels of the body walls and extremities rejoin the spinal nerves as gray rami and pass with them to the structures they enervate and when the blood vessels are reached the vasodilator fibers leave the accompanying nerve and pass on to the blood vessels and terminate by ending upon the plain muscle of the blood vessel walls.

Until quite recently all blood vessels except the cerebral were recognized as having vasomotor fibers. At various times since 1895 certain investigators have described vasomotor fibers in the cerebral vessels. Among these are Gulland and Stohr. More recently Forbes and Wolfe have definitely demonstrated the action of vasomotor fibers in the cerebral vessels. By stimulating the cervical sympathetic ganglia and observing the pial vessels through an airtight glass window in the skull they have observed a decrease in the diameter of the pial arteries which by micrometric measurements amounts to as much as 18 per cent in the arterial diameter, and by similar observations after stimulation of the central cut end of the vagus nerve a vasodilation of equal magnitude occurs.

The clinical application of the knowledge of the vasomotor nerves in the surgery of the vascular nervous system has been far reaching in the treatment of vascular diseases of the extremities associated with trophic disturbances and the demonstration of vasomotor nerves to the cerebral vessels leads to speculators which could not have been indulged in by the wildest of dreamers a few years ago.

That the presence of vasomotor nerves, and their function has been an important factor in drug therapy from the dawn of medical history is of common knowledge. The effect of drugs that produce hyperanemia (vasodilation) or anemia (vasoconstriction) have been used from time immemorial. Other measures such as the use of heat and cold have been in use since man first became acquainted with the effects of the elements upon his body.

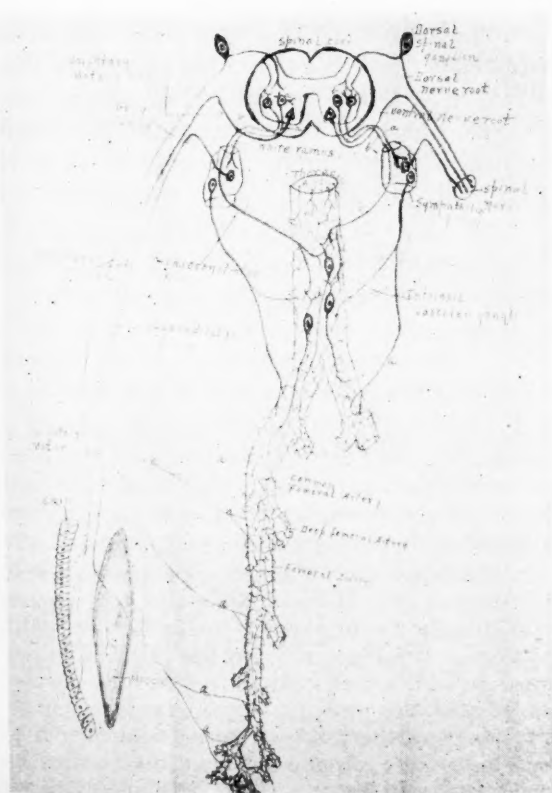
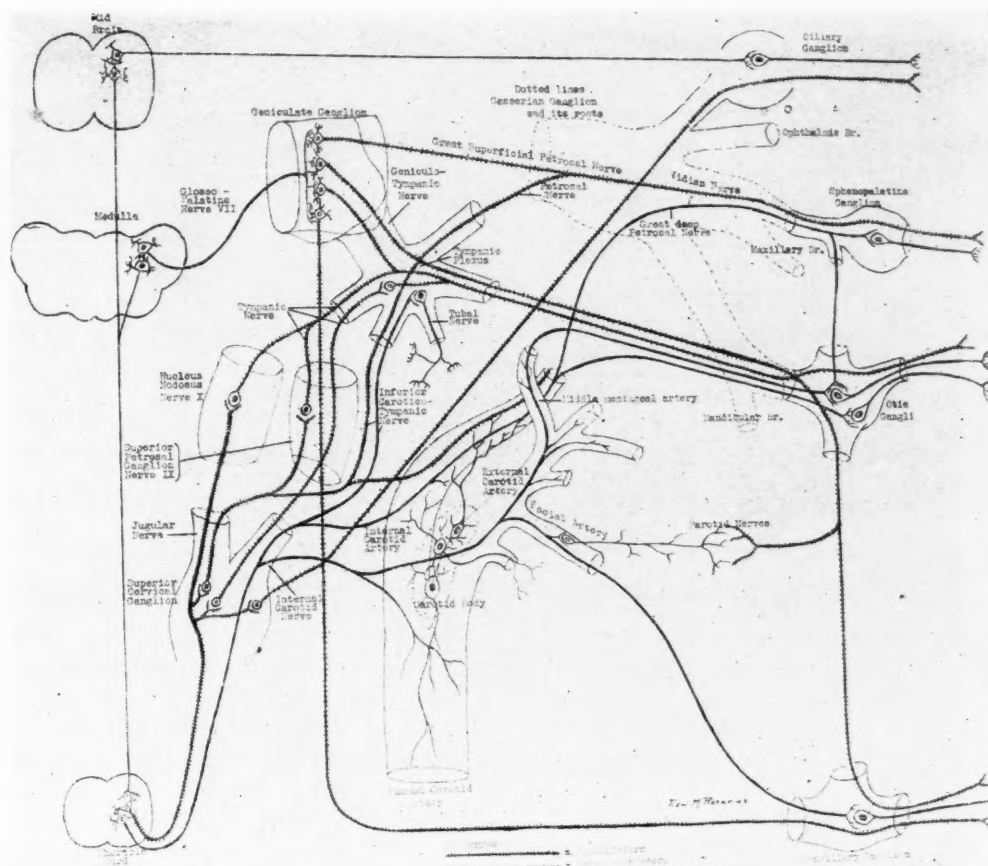
But the use of surgical measures had to await a more definite knowledge of neurovascular anatomy and physiology. This knowledge was quite meager when the first surgical attack was made upon the vascular nerves by Jonesco in 1905. Since that time we have learned a great deal more about both the anatomy and the physiology. Thanks to Leriche, an anatomist and surgeon; to Ranson, a neuro-anatomist; to Forbes and Wolfe, neuro-patholo-

gists and to Brown, a physiologist, and to others.

Relief for Raynaud's disease, chronic ulcers, thromboangiitis obliterans, gangrene, acroparesthesia, X-ray burns, chronic arthritis deformans, painful stump and certain traumatic conditions have been obtained by an attack upon the vasomotor nerve supply.

As we review the history of the development of the surgery of vascular nerve surgery, four stages are recognized. The first consisted of the development of periarteriorrhaphy. This was done largely by French surgeons. The second period consisted in the use of the operation of ganglionectomy combined with periarteriorrhaphy. The third which by some surgeons is regarded as the final stage consisted of a ganglionectomy plus a ramisection. At present I am strongly inclined to believe that a fourth stage or period is dawning in which injection of the periarterial sheath with 95 per cent ethyl alcohol will become the method of choice because it is just as effective as any of the other methods, it is without danger to the blood vessels, there is very little shock to the operation, it is not mutilating, the technic is simple, it is lasting in its effect, and it can be definitely limited to the part that it is desired to influence.

We have been using this method since last June. We have done the operation thirty-seven times and in no instance have we failed to secure a reaction, and no untoward results have followed. We have used it for (1) ulcers of various types such as chronic indolent ulcers, varicose ulcers, chronic traumatic ulcers, arteriosclerotic ulcer; (2) gangrene from frost bite, from diabetes, thromboangiitis obliterans and senile arteriosclerosis; (3) chronic arthritis deformans; (4) chronic postlethargic encephalitis, and (5) epilepsy. We believe that it can be used successfully for Raynaud's disease, X-ray burns, acroparesthesia, painful stump, intermittent claudication (we used it in one case with relief to the patient), and as a pre-operative measure in amputations for gangrene. It may prove of value in certain types of hypertension, atrophic rhinitis, migraine, tic douloureux, dementia due to cerebral arteriosclerosis, and possibly other mental conditions may be benefitted. While these suggestions may sound like wild speculations indicating that I may need an alcoholic injection myself, yet we must not forget that we are dealing with a fundamental vegetative mechanism when we are par-

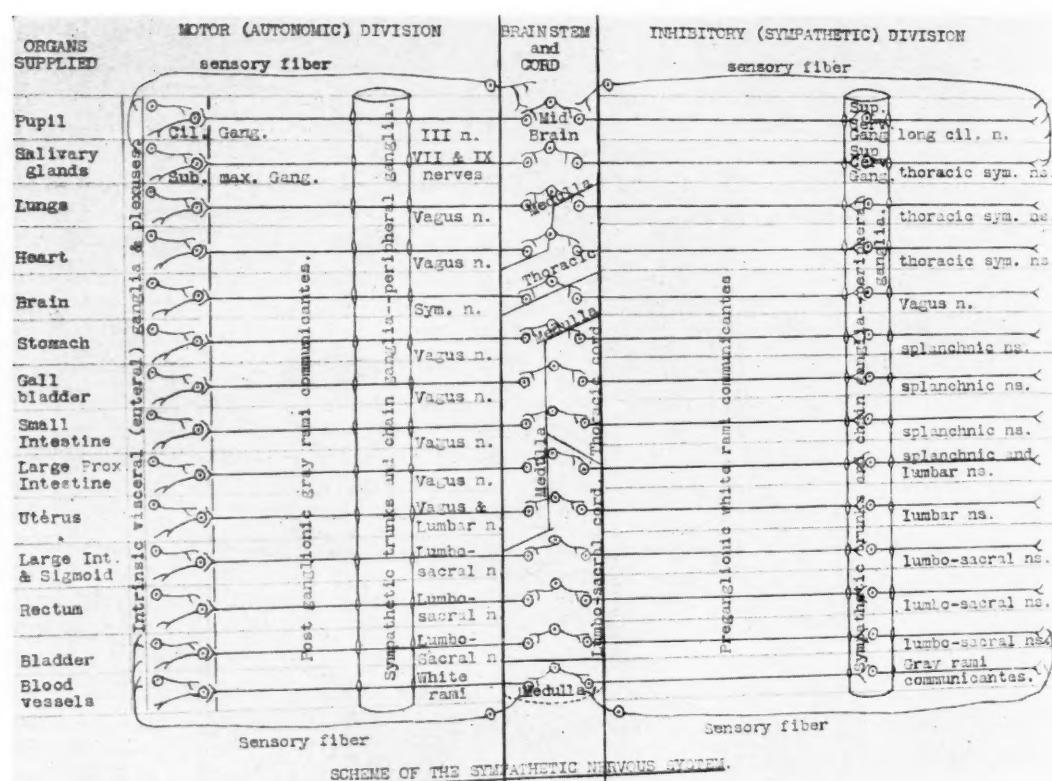


analyzing the vasoconstrictor nerve fibers to the blood vessels which transport the nutriment to the body tissues.

Those foods, drugs, and influences which can effect changes in cell metabolism are most potent factors in vital activity and certainly no factor is more potent in tissue metabolism than the blood. So therefore, any agent at our command which we can control in increasing the flow of blood to an organ or in relieving a vascular spasm, has potentialities far greater than any of the agents in common use among us.

Therefore I am optimistic as to the possibilities inherent in any method which will enable us to control or influence in any definite way for therapeutic purposes the vasodilator effect of the vascular sympathetic nerves upon the blood vessels with the resultant effect of increased blood flow with all its life giving properties to crippled body tissues and organs.

It is to be noted: (1) The motor sympathetic nerves do not relay after leaving the cord until the terminal (enteral or visceral) ganglia are reached and that they terminate on these ganglion cells. (2) The



inhibitory fibers relay in the ganglia of the sympathetic trunks and terminate by simple endings in the viscera. (3) The sensory fiber has its cell body in the dorsal spinal ganglion and terminates peripherally by a simple ending and centrally in the cord. (4) We regard the vagus as the motor regulator of the heart and the sympathetic as inhibitor to the vagus. The reasons for this view are: (a) Before the vagus becomes medullated the heart continues to beat at its embryonic myogenic rate. When the vagus begins to exercise its influence the heart rate slows to the

normal adult rate. (b) At operation we have had patients with rapid heart rates (130-140) and immediately after bilateral section of the sympathetic in the neck the pulse rate dropped to 68 and so remained during the rest of the operation and after convalescence. We conclude therefore that the sympathetic inhibits the vagus and thereby has a tendency to make the heart assume the primitive myogenic rate of early embryonic life. With the acceptance of this view our plan of arrangement of the sympathetic becomes uniformly applicable throughout its distribution.

PSYCHIATRISTS MUST ATTACK SOCIAL PROBLEMS TO HELP INDIVIDUALS

In an age that is essentially analytical, concerned with specializing and taking apart, psychiatrists are trying to build up personalities, declared Dr. James S. Plant, director of the Essex County, N. J., Juvenile Clinic at the sixth annual meeting here of the American Orthopsychiatric Association.

The family, home life, schools and industry are each withdrawing from the other, becoming specialists. In the day before the industrial revolution of 1800, industry, earning power and education were bound up with each other and with the home and family life, Dr. Plant observed. Today all that is changed. The psychiatrist is faced with the difficult task of trying to build up some-

thing, in a world where the reverse process is constantly going on. He is trying to integrate the individual's personality with home and work and social activities, when every force is toward disintegration of these different phases of life.

Psychiatrists must then attack social problems, Dr. Plant said. It is of little use to integrate people without integrating the milieu in which they live. Dr. Plant advised the psychiatrists to study modern social institutions, to find one that represented the probable future synthesizing institution, and then to give active and loyal support to it. He prophesied that this institution would probably be the school.—Science Service.

BRAIN TUMORS—NOTES ON SOME PROBLEMS OF DIAGNOSIS†

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Papers on the diagnosis of brain tumors have been presented before this society at previous meetings. The writer of the present paper is not, therefore, attempting at this time a full discussion of the subject, but is limiting himself to a consideration of the following three fundamental questions.

- I. The importance of the early recognition and localization of brain tumors.
- II. Reasons for delay in diagnosis.
- III. Suggestions for furthering early diagnosis and treatment.

I. We need make only the briefest mention of the first topic,—the importance of the early recognition and localization of brain tumors. The value of early diagnosis is recognized as a fundamental surgical law, and no one will deny that it is peculiarly applicable to neuro-surgery because of the delicately complex structure of the brain and its coverings, and the ease with which its functions are altered or destroyed.

Brain tumors produce destructive effects in two ways: First, by the direct destruction of the primary or secondary brain centers and pathways; second, by the alteration of the delicate balance between the blood-circulatory and the cerebrospinal systems through the pressure caused by obstructive hydrocephalus. The effects of pressure—venous congestion, edema, anemia, and medullary compression—occur in such varied combinations that the signs and symptoms may be confusing and thus the localization made difficult in many cases.

Malignant tumors of the brain, while they do not metastasize to other parts of the body, cause rapid and extensive destruction in the soft brain tissue, which offers little or no resistance to the invasion. Tumors that are histologically benign, usually become, sooner or later, malignant in their effects. The results of prolonged pressure or of destructive processes in the brain are a lowering of general vitality, the dulling of the mental faculties, the loss of special functions, and later the onset of stupor, coma, and finally death from medullary compression.

The highest aim of the surgeon should be not merely to substantiate his diagnosis by locating the lesion, but to determine the type, size, and location of the tumor early enough to give surgery its chance of relief or cure. When operation is performed

early, the surgeon encounters fewer difficulties, the risk to the patient is lowered, and the recovery from operation is more rapid. The result of surgical intervention cannot be called entirely satisfactory if the patient must endure blindness or paralysis the rest of his life.

II. In taking up the second topic—reasons for delay in diagnosis of brain tumors—we must recognize that great progress has been made within the last few years. Splendid results in diagnosis and treatment are being obtained in the larger medical centers and in many smaller clinics. But we still have patients coming to us with symptoms which have elsewhere led to diagnoses resulting in abdominal or other operations, ophthalmological treatment, or physiotherapy, and who have gone from clinic to clinic without securing relief until, often too late, the existence of a brain tumor has been discovered. In considering the reasons for delay in recognition and diagnosis of these cases, we must acknowledge that the condition presents subtle difficulties, of which the following may be mentioned as most important.

1. Brain tumors usually develop insidiously. They may attain large dimensions in a silent area without giving any signs. If they grow slowly, there is often an astonishing degree of accommodation, one center taking over the functions of a damaged one. Even the changes in the circulatory balance, if sufficiently gradual, can make considerable progress unnoticed.

2. Persons suffering from headache, nausea, or impairment of vision or hearing tend to overlook the symptoms or to explain them on the basis of indigestion, fatigue, or eyestrain. When they do go to their physician, they may go with a preconceived notion of the cause of their ill health, and may tell an incomplete story. Such cases test a physician's ability and thoroughness. It sometimes happens, also, that patients delay in securing medical attention because of financial difficulties.

† Presented before the Surgical Section of the Michigan State Medical Society, Detroit, September 27, 1928.

* From the Division of Neuro-Surgery, Henry Ford hospital, Detroit, Michigan.

3. There are cases in which the history and neurological findings alone are inadequate as a basis for diagnosis. The cardinal signs (headaches, vomiting, and failing vision) may not have appeared, or one only may be present, along with other confusing and conflicting symptoms. The early clinical picture may or may not include the secondary signs, such as mental changes, slowing pulse, and convulsions. These indefinite cases should be considered "tumor suspects," and every effort made to work out the diagnosis. At present, even in the best clinics, many cases remain as suspects, and are sent home without treatment. Some never return, either because they are not sufficiently impressed with the seriousness of the condition, or because they are not adequately followed up. Some of them, however, do return at regular intervals and our diligence is at times rewarded as we later find definite signs as a basis for diagnosis. Sometimes an early diagnosis can be safely made, based on but one of the cardinal and a few secondary signs correctly interpreted.

Two recent cases on our medical service illustrate the difficulty of early diagnosis. One was considered a nephritic coma and the other cerebral hemorrhage. Ventricular puncture with air injection showed them both to be brain tumors. Both died before exploration could be performed, and autopsy revealed in the first a huge frontal glioma and in the other a cerebellar glioma.

4. Sometimes the presence of another disease obscures the picture of brain tumor, or results in incomplete examination for the latter condition. A case which we are soon to see gives the story that he has been treated for a year for tertiary lues. He now has a primary optic atrophy, a bi-temporal hemianopsia, and X-ray shows an enlarged sella. The history suggests the presence of a pituitary tumor, which could have been diagnosed earlier had he mentioned his failing vision and field defects, or had they been discovered by more complete routine examinations.

5. In some cases the diagnosis is correctly made but the patients refuse operation, either because they feel it is hopeless or because they have been prejudiced against it by friends or even perhaps at times by their family physician. Three of our cases illustrate this tendency.

CASE 1

A young man of 25 (Fig. 1) had had headaches and defective vision for three months. An examination revealed an early papilledema and a right lower quadrantic hemianopsia. A brain

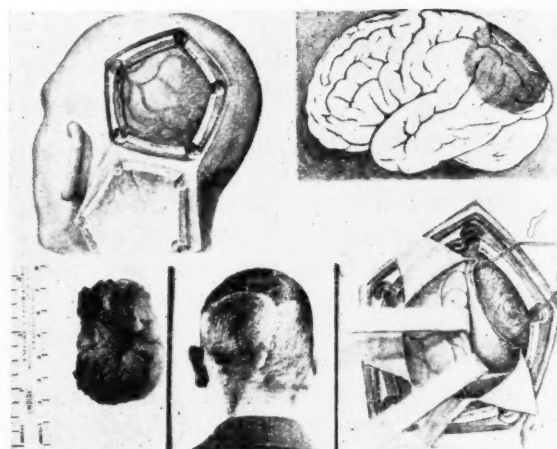


Fig. 1—Case 1

Location and operative exposure of left occipital meningioma. Tumor after removal. The patient a month after operation.

tumor was diagnosed, but he refused operation until nine months had passed and he was almost blind. At an exploration, we were able to remove a meningioma from the left occipital lobe. His vision did not return to any marked degree, and a year later the site of the previous meningioma was found to be occupied by a tumor mass, this time malignant. Had the first operation been performed earlier, the patient might be alive and enjoying good eyesight today.

CASE 2

A man of 45 had unmistakable signs of a posterior fossa lesion which was causing an obstructive hydrocephalus with a bilateral papilledema. He had also chronic sinusitis. In spite of treatment of the latter condition, he became worse and we strongly urged operation. He postponed it because his wife was seriously ill, and one day he died suddenly while in the bath tub. It was doubtless due to a tumor.

CASE 3

A woman 29 years of age (Fig. 2) came to us with signs of a right frontal lobe tumor. She at first refused surgical treatment, because she felt it was hopeless. After a delay of two months, however, we were able to prevail upon her,

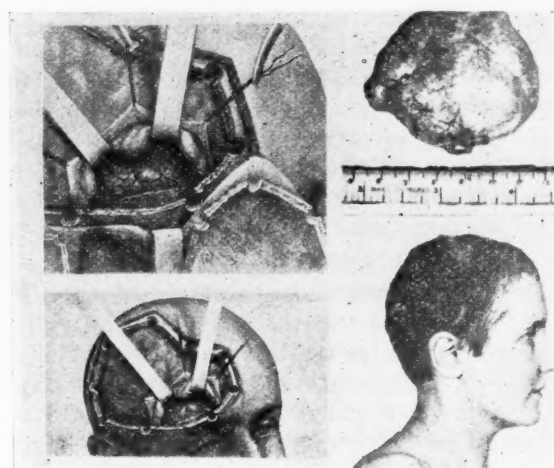


Fig. 2—Case 3

Right frontal meningioma exposed. Tumor after removal. The patient two months after operation.

through her family physician, to have an exploratory operation. A meningioma was removed from the right prefrontal region. After an interval of two years, she is still well, but has an impairment of vision, which would have been less if the two months' delay could have been avoided.

6. On the other hand, in spite of sufficiently clear symptoms of brain tumor, the diagnosis may be incorrect because of (a) too hasty examination or (b) too narrowly specialized interest on the part of the examiner. Case 4 illustrates the former of these reasons for incorrect diagnosis. The early signs of brain tumor are often obscure and complex, and conscientious thoroughness in the examining physician is necessary to elicit facts which the patient may be withholding through ignorance or misinformation.

CASE 4

A woman of 43 had been under the treatment of a good, but busy, eye, ear, nose and throat clinic for two years. Her chief complaint had been visual difficulty, for which several pairs of glasses had been tried without relief. She finally began to show ataxia in her gait and some deafness in her right ear. On being questioned she admitted that she had been stumbling for several months, and on several occasions had fallen, but had been ashamed to mention it, and that she had had periodic headaches, vomiting, vertigo, and right-sided deafness for nearly two years. She was referred to us for neurological examination and a right cerebello-pontine angle tumor was



Fig. 3—Case 4
Shows the herniation in the right sub-occipital region two years after operation for right cerebello-pontine angle tumor.

diagnosed. There was then a bilateral papilledema with five diopters' elevation, well marked cerebellar symptoms and complete right nerve deafness. Exploration revealed a large neuro-fibroma in the right cerebello-pontine angle which had become malignant. A subtotal removal was made and radium inserted, followed later by deep X-ray therapy. More than two years have passed, and she is seeing almost normally, and shows very little ataxia, but is still deaf. (Fig. 3). Her chances of real cure of course are less favorable because of the delay in treatment.

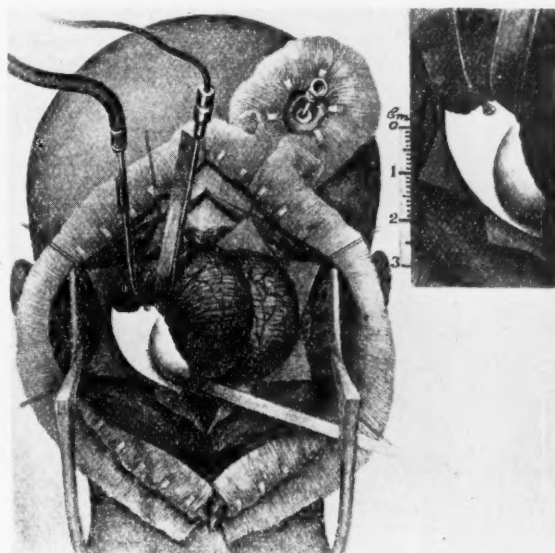


Fig. 4—Case 6
Showing the acoustic neuroma in the left cerebello-pontine angle. An intra-capsular removal was made of the tumor followed by insertion of radium.

(b) Present day specialization in medical practice tempts us to center our attention on the phases of a case which most interests us, and we often fail to consider the patient as a whole. The failure may be due to lack of broad training and experience on the part of the examiner, as well as to lack of interest in conditions lying outside his specialty. Three cases will serve as examples.

CASE 5

A woman of 48, examined in a well known clinic, gave as her chief complaint symptoms which led to a diagnosis of gall stones. She was referred to a general surgeon who concurred in the diagnosis, and she was prepared for abdominal operation. She developed, however, a severe headache, which led to further investigation and a neurological examination. A right acoustic neuroma was diagnosed and removed before the gall stones were attacked. The neurological examination might have been done earlier in this case had not the gall stone picture been so definite and the examiner so easily satisfied to end his investigations.

CASE 6

A young man, aged 26, (Fig. 4) was living in California. While there he developed an iritis which was treated by an excellent eye specialist. A sinusitis was also present. Both seemed to clear up under treatment. Later he was trans-

ferred to two other specialists and while under their care, developed progressively left-sided tinnitus, deafness, and later ataxia, headaches, vomiting and blurring of vision. These symptoms were apparently all explained as a labyrinthitis from the sinusitis. He has brought to Detroit last August. By the time we examined him he had a bilateral papilledema with two diopters' swelling, a well marked left cerebellar syndrome with vision limited to counting of fingers on the right and light perception on the left. There was practically complete left nerve deafness. A left acoustic neuroma was diagnosed and an intracapsular removal done, followed by the insertion of radium. When last seen his papilledema was subsiding and cerebellar signs disappearing, but the operation should have been done several months earlier.

CASE 7

A woman of 38 had been treated by several physicians for one and a half years for headaches, vertigo, vomiting, and later visual dis-

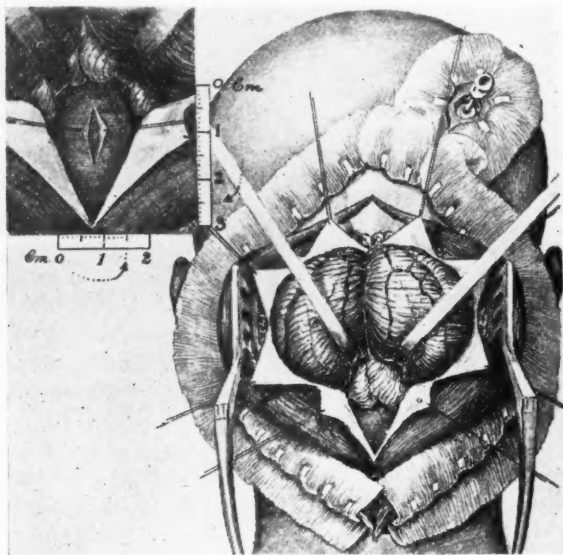


Fig. 5—Case 7

Shows endothelioma lying over the medulla in the sub-arachnoid space. Practically complete removal was possible followed by X-ray therapy later.

turbances, various diagnoses had been made and the various treatments had been of no avail. Our examinations led us to make a diagnosis of a posterior fossa midline lesion. A suboccipital exploration revealed a tumor (Fig. 5) which had completely filled the lower part of the fourth ventricle. It was all successfully removed except its attachments at the sides of the medulla and deep roentgen ray therapy was used post-operatively. The pathological diagnosis was endothelioma. The patient has remained free of symptoms for over two years.

III. Suggestions for furthering early diagnosis and treatment.

1. We must all develop an increased suspicion toward the possible presence of brain tumors, just as we have toward lues and cancer. Brain tumor was formerly seldom reported from hospitals and diagnostic clinics; it is now found at the rate of one case in three to five hundred. This

rate will probably increase as the symptoms of brain tumor become better known.

2. With more widespread knowledge of the early signs and symptoms should go a more optimistic attitude toward the prognosis. The desired extension of knowledge can be secured by: (a) more nearly adequate training and clinical experience in the field of brain surgery during the undergraduate medical course; (b) the inclusion of this in programs of graduate study; and (c) suitable education of the laity.

(a) Undergraduate instruction in the diagnosis and treatment brain tumors is being well given in most of the medical schools, but there are still too many graduates who seem to be not sufficiently interested or think themselves unable to work out an easy case to a diagnosis. Every one of us should have a working knowledge of neurology and should be thoroughly trained in the use of the ophthalmoscope. Cushing and others have been stressing for years the importance of thorough familiarity with the ophthalmoscope, and yet the number of early cases which escape detection proves that it is not used as generally as it should be. It is to my mind impossible to overstress the importance of routine ophthalmoscopic examination in all cases.

(b) Graduate teaching in this field is provided in many state universities and medical centers, and physicians should more generally take advantage of it. Doctors Peet and Camp at the University of Michigan have done a great deal toward providing satisfactory undergraduate and graduate teaching in this subject, for this state and it is to be hoped that more and more of this sort will be available in Detroit.

(c) The common people have been taught a great deal about tuberculosis, goitre, diabetes, and many other medical and surgical conditions. Their instruction regarding brain tumors and similar diseases should not be long delayed.

Adequate medical training, undergraduate and graduate, should make it possible for most of us to detect the early cases. It is our hope that some day we may be able to diagnose cases with sufficient accuracy so that we can differentiate between the hopeless ones and those which can be helped. Reports from our leading neurosurgical clinics show that great progress has been made during the last two decades. Mortality rates have been cut from over 50% to from 15% to 20% for brain tumors. At least half of the brain tumors

are benign in type and many operations result in complete cures. The life expectancy after operations even on the gliomata has been definitely lengthened. As these more encouraging aspects are becoming more widely known, there should be fewer family physicians who advise against surgery, and there is developing a definitely more hopeful attitude toward this whole problem.

3. Examinations of patients should be more complete, and specialization should not prevent us from getting at the first interview a picture of each case as a whole. We do not mean by this always an exhaustive neurological survey, but the inclusion in the examination of those points in history and physical findings which cover the nervous system. If symptoms such as headache, vertigo, vomiting, visual difficulties, deafness or mental changes are present, they should lead to a complete examination by a neurologist. Specialists will find that they inspire deeper confidence when they make it evident that they are surveying all phases of the patient's condition.

4. In cases which are difficult or impossible to diagnose, every means at our disposal should be used before dismissing the patient. All available aids to diagnosis should be employed, such as X-ray studies of the skull, spinal puncture, special visual

and auditory tests, in special cases the neurotological tests such as the Barany and the caloric tests, and ventriculography or ventricular estimation in cases where all other means have failed to give accurate localization. Adequate follow-up of the "tumor suspects" is often difficult, either because the patients move about from place to place and are hard to trace, or because they wish to avoid the expense of repeated examinations. If sufficient effort is made, however, the patient can often be persuaded to return for the necessary examinations, and the reward is sometimes an early diagnosis and splendid results of treatment or operation.

SUMMARY

1. In order to secure the best results in the treatment of brain tumor, it is necessary that diagnosis, accurate localization, and treatment be instituted early.

2. Although marked progress has been made in the diagnosis of brain tumors, we still see too many cases escaping diagnosis or being discovered only in the late stages. It lies within the power of the medical profession to deal with the reasons for delay.

3. To assist in the early recognition and accurate diagnosis of brain tumors, some suggestions are offered for more effective co-operation in dealing with this most difficult problem.

FACTORS IN THE DECAY OF TEETH

An interesting study of the factors concerned in the decay of the teeth has been made by Dr. Louise O. Kappas, Fellow in Pediatrics of The Mayo Foundation, and reported in the *American Journal of Diseases of Children* (36:268, August, 1928). For this study two groups of Rochester school children were selected for comparison, 25 with perfect or nearly perfect teeth, and 25 with marked dental caries. The ages of the children ranged from 5 to 13 years, the average age in the first group being 9.5 years, and in the second group 6.1 years.

Prenatal factors were first inquired into and it was found that the health of the mothers of 16 children in the first group and of 18 of the second group was good, the difference being too small to be of significance. The diet of the mothers was found to be of more significance, green vegetables, fruits and milk predominating in the diet of 14 of the mothers of the first group and of 10 of the second group, whereas meat, potatoes and sweets predominated in the diet of six of the first group and 10 of the second group.

Breast feeding seemed to be an unimportant factor, as 11 children in each group were breast-fed for more than nine months, and four in each group for less than one month. Cereal feedings were started before the age of nine months in 11 of the first group and in 16 of the second group. Vegetables were regularly given before the age of one year to 14 of each group. The members of both groups had received very little orange

juice and cod liver oil.

After the age of one year, however, the diets varied greatly between the two groups, for it was found that green vegetables, fruit, meat and eggs predominated in the diet of 13 of the children with good teeth, and in only three of those with poor teeth, whereas carbohydrates predominated in 14 of those with poor teeth and in only three of those with good teeth. Fourteen of those with poor teeth and only two of those with good teeth ate candy and sweets. More milk was drunk by members of the second group, and contrary to what might be expected, more of the second group than of the first group brushed their teeth regularly. Factors of heredity and of infectious disease incidence seemed of little importance; the important factor in preventing decay was apparently the diet of fruits and vegetables.

A group of 50 children is an exceedingly small one on which to base any very decided conclusions. Besides bearing out the general impression that a carbohydrate diet favors the growth of those mouth flora responsible for decay, however, this study also suggests in a striking manner that the diet is of more importance than the toothbrush. This is of special significance in view of the fact that the toothbrush is now being indicted in various quarters as a menace rather than an aid to oral hygiene, and certainly, as is commonly used and cared for, the toothbrush can hardly be considered as a utensil of cleanliness.—*New England Medical Journal*.

PRESENT STATUS OF GALL-BLADDER DIAGNOSIS AND SURGERY

FRED P. CURRIER, M. D.*

W. R. TORGERSON, M. D.**

GRAND RAPIDS, MICHIGAN

During the past year Dr. Currier and myself sent out questionnaires to one hundred persons who had been operated for gall-bladder disease at some time during the years 1924-25. We surmised that some interesting and perhaps valuable material might be obtained by investigating the results after a period of four years or so had elapsed since operation. We were unquestionably influenced in making this investigation by the marked increase in the general popularity of cholecystectomy throughout the country not as compared to cholecystostomy but as a means of treating the syndrome known as cholecystitis. No doubt the introduction of the dye-test has been a factor in increasing the diagnosis, and as a consequence the number of operations. Judd voices such an opinion in an article of this past year, and adds that he is of the impression that many unnecessary operations have been done.

Our questionnaire was long and comprehensive so we felt well satisfied when we received fifty replies. It is upon the basis of these fifty cases that this paper is written. We know that this is too few a number from which to draw any definite conclusions, and we are submitting this simply as a preliminary report. It is our intention to go on with the investigation and make a more complete and comprehensive report later. One phase upon which we have very little information at this time is in regard to the dye-test, which was just coming into use when these patients were operated. Only three of these fifty had the dye-test.

The questions asked were largely relating to their gastro-intestinal symptoms, both before and after operation. We were also interested in the symptoms that are associated with the neuroses, because of the frequency with which "neurotics" are subject to "stomach trouble." Questions were also asked in regard to the symptoms that might be of cardiac origin, bearing in mind the possibility of confusing abdominal angina with gall-stone colic. In most instances the replies were satisfactory, being complete and frank so far as we could tell.

It is our opinion that this group is a representative one both as regards pre-operative symptoms and the findings at operation. In only ten patients was there little pathology found, and one of these ten had what is known as a "strawberry

gall-bladder," but so mild that we placed it in this questionable group.

FIRST SLIDE

Total number of cases replying to the questionnaires—50.
Female—45 (90%). Male—5 (10%).
Average age—46½ years. Youngest—aged 20 years. Oldest—aged 69 years.

SECOND SLIDE

First question asked: "Is it your impression that your general health has been benefited by the operation?"

Thirty-nine, or 78%, answered YES; 9, or 18%, answered NO; 2, or 4%, gave no answer.

THIRD SLIDE

Post-operative results in a recent investigation by Deaver:

	Calculus Group	Non-calculus Group
Condition entirely relieved	64.1%	65.5%
Condition improved	13.1%	17.5%
Total	77.2%	83%

35% of this group had been operated two years or less.

FOURTH SLIDE

In our cases although 78% were under the impression that their general health had been benefited by the operation, only 36% were completely relieved, as compared to Deaver's 64%.

FIFTH SLIDE

Granting definite pathology in both series of cases, we analyze the difference in the above figures as being due to:

1. More thorough questioning in our series.
2. Greater period of time elapsing since operation.

SIXTH SLIDE

Pathology in this series as follows:

	Cases	Per-cent
Mild chronic cholecystitis, without stones.....	10	20
Severe chronic cholecystitis, without stones.....	7	14
Acute and subacute cholecystitis, with stones.....	5	10
Mild chronic cholecystitis, with stones.....	6	12
Severe chronic cholecystitis, with stones.....	20	40
	96	
2 cases, no pathology recorded	4	
	100	

SEVENTH SLIDE

Pre-operative symptoms in order of their frequency were as follows:

Symptoms	No. of Cases	Per cent
1. Pain, average duration, 8½ years.....	45	90
2. Belching of gas.....	44	88
3. Fatigue	42	84
4. Bloating or distention.....	39	78
5. Distress after eating.....	38	76
6. Constipation	37	74
7. Dizziness	36	72
8. Vomiting in 29 cases associated with pain.....	34	68
9. Palpitation of the heart.....	34	68
10. Nervousness	32	64

EIGHTH SLIDE

Symptoms	No. of Cases	Per cent
11. Jaundice	32	64
12. Backache	26	52
13. Cold and moist extremities.....	25	50
14. Precordial pain or else pain radiating down left arm.....	24	48

* F. P. Currier, M. D. Graduated from University of Michigan in 1916. Instructor in Medical Department of University of Michigan, 1917. Instructor in Neurology Department of University of Michigan, 1921.

** W. R. Torgerson, M. D. Graduated from University of Michigan in 1922. Interne at University of Michigan hospital.

15. Occipital pain.....	23	46
16. Migraine.....	23	46
17. Diarrhea (occasionally).....	20	40
18. Ordinary headaches.....	19	38
19. Band-like sensation around head.....	17	34

NINTH SLIDE

Comparison of pre-operative and post-operative symptoms:

Symptoms	No. of Cases Pre-operative	No. of Cases Post-operative
Pain.....	45	16
Belching of gas.....	44	15
Fatigue.....	42	31
Bloating or distention.....	39	20
Distress after eating.....	38	25
Constipation.....	37	25
Dizziness.....	36	13
Vomiting.....	34	14
Palpitation of the heart.....	34	16
Nervousness.....	32	16

TENTH SLIDE

Symptoms	No. of Cases Pre-operative	No. of Cases Post-operative
Jaundice.....	32	10
Backache.....	26	14
Cold and moist extremities.....	25	11
Precordial pain or left arm pain.....	24	—
Occipital pain.....	23	11
Migraine.....	23	13
Diarrhea.....	20	11
Ordinary headaches.....	19	15
Band-like sensation around head.....	17	14

(12 somewhat relieved)

The number of cases considered in the above group is too small to draw any definite conclusions concerning the relationship of the various symptoms to the various types of pathology in gall-bladder disease, or in disease of the rest of the biliary system. Work is now in progress which may give us some interesting data on pre-operative as compared to late post-operative symptoms in the various types of gall-bladder disease. We hope to make some interesting comparisons between this group of cases and an equal number who have had, pre-operatively, a gall-bladder dye-test made. Such a comparison from the standpoint of post-operative symptomatology would be particularly interesting, especially in the light of recent and continued advancement in the field of liver function tests. We also hope in our further study to formulate more clearly, in our own minds at least, the symptomatology of chronic cholecystitis, particularly in the milder cases, and to differentiate that from the neuroses if possible.

Of what significance then, if any, are these findings? Do they mean that operation was either not indicated or unnecessary? We are inclined to answer in the negative. We must remember, in the first place, that the average duration of the disease in this group prior to operation was eight and one-half years; and, secondly, that many of these patients had been under medical care with no improvement. The 36 per cent who were completely relieved would alone justify the surgery, and more especially when seventy-

eight per cent feel they have received a real benefit.

However, these findings, to us at least, do have a real significance. We do not contend that the symptoms mentioned are all the result of an infected gall-bladder, they are simply the most frequent symptoms encountered in this group. Over half of this series of cases (32 out of 50) admitted functional nervous symptoms of a generalized nature, such as being easily worried, irritated, depressed, etc. Sixteen of these thirty-two were relieved either wholly or partially. This suggests the question, 'What bearing do the functional nervous symptoms have as an etiological factor in organic biliary disease?'

Further, there are many residual symptoms that are at least the same as those commonly associated with gall-bladder pathology. A considerable number of these patients are not well notwithstanding their surgery. They have not only symptoms usually associated with a neurosis, but also symptoms suggesting a disturbed physiology of the gastro-intestinal tract and symptoms suggesting a toxemia.

Today the physiology of the gall-bladder is just beginning to be understood. The work of Professor Boyden of Chicago would indicate both that it empties after every meal and that it plays an important part in the digestion of fats. It is not an organ with practically no function, as the statements of a number of prominent surgical writers would lead us to believe. A few articles are beginning to appear in the literature discussing a group of symptoms that may be expected to follow cholecystectomy. These investigators are convinced that a disturbance in liver physiology results, which is more manifest the nearer normal the gall-bladder is at the time it is removed. A definitely diseased gall-bladder has ceased to function, and as a consequence adjustment of physiology has taken place up to a certain point. Its removal is of distinct benefit to the individual because it means the removal of a focus of infection that is in itself harmful.

Also today we are beginning to appreciate a different pathology behind cholecystitis. Many investigators, among whom we might mention Judd and Moynihan, feel that a hepatitis precedes rather than follows cholecystitis.

Consequently, we think that our investigation so far justifies the following conclusions:

First: Because of the persistence of symptoms pointing either toward a neu-

rosis or disturbed biliary function, or both, the patients must be under a longer period of post-operative observation and care than is now the usual custom.

Second: The late post-operative symptomatology supports the present conception of some recent writers who believe that cholecystitis is but one phase of generalized disease of the biliary system or disturbed body metabolism.

DISCUSSION

Discussion on "The Present Status of Gall-Bladder Diagnosis and Surgery," by Doctors F. P. Currier and Wm. R. Torgerson, Grand Rapids:

Dr. F. P. Currier (Grand Rapids): I have nothing much to add, Mr. Chairman. My primary interest in gall-bladder disease was aroused particularly because I saw so many patients in my neurological practice who had had their gall-bladder removed and who still complained of symptoms that would lead one to suspect that there was something wrong at least in the region of the liver, gall-bladder, pancreas, stomach or upper intestinal tract. We asked a great many more questions than we have been able to show by these slides, but we didn't want to bore you with a lot of statistical data. We asked questions regarding the association of pregnancy, the number of pregnancies, etc., with gall-bladder disease.

In this particular group, the women, forty-six in number or forty-seven, averaged three pregnancies, and frequently their first attack of gall-bladder symptoms came on following pregnancy.

We also asked other questions in regard to the pain, as to the location of the pain, etc. Our questionnaire agreed with that of other writers who have investigated the type of pain in gall-bladder disease. We investigated their weight as compared to their height and the ratio in this gall-bladder group was high.

It seems these cases are being neglected in prescribing a proper diet for these patients following their cholecystectomy. I think the surgeon perhaps (if I might be allowed to criticize in any sense of the word) is apt to allow these patients to get out from under his care before they are thoroughly well. Some of them, on account of their heredity or biology will, perhaps, never be well. They are all peculiar types from the chemical standpoint the same as a diabetic.

Some recent writers have been emphasizing the point of doing duodenal drainage after the gall-bladder has been removed and of then reporting excellent results as well as showing that a large percentage of these patients' trouble is not in the gall-bladder itself but is in the liver.

Chairman Jennings: Is there further discussion?

If there is no further discussion, I shall call upon Dr. Torgerson to close.

Dr. Wm. R. Torgerson (Grand Rapids): I don't believe I have any more to say.

ZOOLOGIST FINDS NEW EVIDENCE FOR EVOLUTION

Further evidence that man and monkey are of common descent has been brought forward by Prof. Robert Hegner, well-known zoologist of the Johns Hopkins University. In a discussion of the tiny animal parasites that prey on the inner organs of the higher animals, addressed to Hopkins alumni, Prof. Hegner declared that protozoa of monkeys and men are the only ones that are capable of living in the bodies of either the human or monkey species. It is a well established principle, widely observed by scientists, that each species of animal is afflicted by its own peculiar types of parasite. This principle is known as "host-parasite specificity." "In very few instances," explained Prof. Hegner, "are species of protozoa that live in one species of animal capable of living in another species of animal no matter how closely related the species may be. The situation as regards monkeys and men is

strikingly different. There are a few protozoa that occur in man that do not have representatives among monkeys and a few in monkeys that have not been reported from man but most of the human protozoa have representatives in monkeys indistinguishable from them. This is in such striking contrast to what we know to be true of the protozoan parasites of other animals that we must conclude that a genetic relationship exists between monkeys and men. That is, that the protozoan parasites of monkeys and men have descended from protozoa that lived in the ancestors of monkeys and men and that monkeys and men had the same ancestors. Our studies of these parasites of monkeys and men add a type of evidence to that already acquired that makes even more certain than was heretofore the case that our remote ancestors were arboreal monkeys."—Science Service.

REPORT RESULT OF FLU SURVEY OF ELEVEN CITIES

A survey of the amount of influenza and grippe occurring during a three-month period in eleven cities indicates that only about one-half as many people were attacked in the 1928-1929 epidemic as in the great pandemic of 1918, reports the United States Public Health Service. A house-to-house canvass was made of a sample population of 10,000 people in each locality. Nearly 15 in every hundred of the population canvassed had influenza or grippe during the period of the epidemic. This varied with the locality and comprised about two and one-half to three months from October 15 to February 26.

Of the cities canvassed, Boston had the lowest attack rate, 9.9 per cent and Des Moines, Iowa, the highest, 28.6 per cent. The other were 11.3 per cent for Baltimore, 12.6 per cent for Syracuse, 13.4 per cent for Pittsburgh, 13.5 per cent for Cincinnati, 14.2 per cent for San Francisco, where

the epidemic started, 15 per cent for Kansas City, Mo., 16 per cent for New Orleans, 16.3 per cent for Farmington, Mo., and 17.9 per cent for Seattle.

The incidence of influenza is so low in the canvas compared with that found in groups kept under close and continuous observations as to indicate that the reports probably include only a fraction of the cases which actually occurred. Difference of opinion as to what constituted influenza or grippe and what a cold, together with the necessity of relying entirely on the memory of the housewife, who gave the information, may account for the low incidence recorded.

An attack rate of 0.47 per cent was reported for pneumonia and of 14 per cent for colds. A more detailed report will be issued later.—Science Service.

TREATMENT OF TRAUMATIC AND ACQUIRED FACIAL DEFORMITIES*

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A daily review of the press articles cannot fail to impress one with the fact that auto accidents are decidedly on the increase. The Detroit Receiving Hospital cares for approximately 30,000 accident cases a year and it is estimated that fully 50 per cent of these are due to auto accidents. Of those injured in auto accidents, a large percentage, about 75 per cent, have facial wounds varying in extent from minor lacerations to fractures of facial bones. (Fig. 1). For the first six months of this year, auto accidents alone were responsible for 103 fractures of the lower jaw, 36 of the upper jaw and 8 nasal bone fractures, as shown by the reports of this one hospital (Dr. T. K. Gruber, Superintendent). Accidents in industrial life which involve the face, are much less common and represent about 2 per cent of the injured cases cared for by an industrial hospital. (Michigan Mutual Hospital, Dr. H. Begle, Superintendent).

In view of the above statistics showing an ever increasing number of facial wounds, it seems essential that more careful emergency treatment should be given to reduce the number of resulting deformities. It is almost inexcusable, where time

the tissues must be handled with extreme care. Scar or bruised tissue should be cleanly excised, the wound edges undercut and carefully brought into exact approximation with slight eversion. In handling skin a hook applied from beneath does no damage, while a skin forcep usually bruises. Sutures should be preferably of horse hair for facial work, used on fine

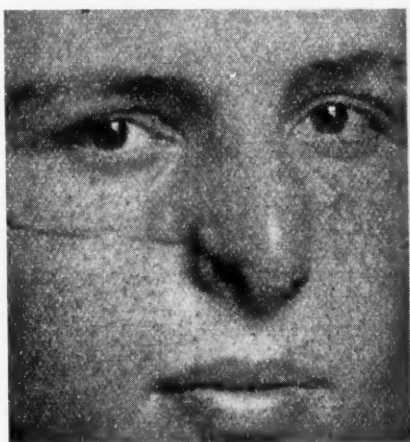


Figure 1

Windshield cuts are frequent in auto accidents.

and proper facilities are available to suture facial wounds with large silk worm, catgut, or linen stitches, or employ an occasional skin clip to close a facial wound which will leave a hideous deformity if not treated carefully.

Whenever possible, the immediate treatment of such wounds should be practically the same as the delayed treatment of a facial scar. To produce a minimum scar



Figure 2

Mattress sutures to produce eversion of wound edges. Interrupted double-twisted horse hair for exact approximation.

sharp needles. Horse hair mattress sutures which evert the skin edge slightly produce excellent results, but should be accompanied by double twisted horse hair sutures through the very edge of the skin, every $\frac{1}{8}$ inch if necessary to produce the closest approximation (Smith). (Fig. 2). In secondary excisions if parallel with Langer's lines, I find a double subcuticular stitch gives excellent service (Hunt). An ice bag if applied at once, helps to prevent bleeding and retards infection. The wound

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Figure 3
Crushing injury to nose.

should be kept meticulously clean and stitches removed usually from two to four days later, if the best results are to be obtained.

Injuries involving bone destruction or loss of tissue are those which produce the greatest deformities. Bone injuries are usually followed by draining sinuses, depressed scars, etc., and usually require reconstructive surgery.

In the milder injuries, especially of the nose, the early treatment is especially important. Carter has pointed out that many of the septum deflections and nasal deformities are undoubtedly due to childhood accidents to which little attention has been paid. Such injuries should have more careful attention. Depressed nasal bones elevated and held in position with proper packing or splints so that fewer deformities would result.

Deviations of the nose if treated early can usually be corrected by simple thumb pressure followed by a lead splint properly

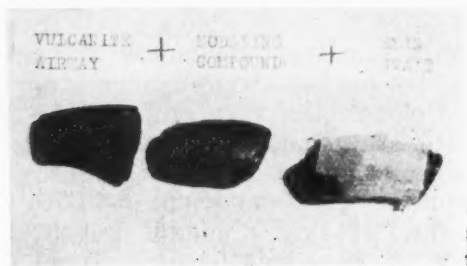


B
Figure 4

A—Vulcanite airway with modeling compound and skin graft.
B—Same introduced into nose to relieve atresia of nostrils due to scar contraction.

held in place, but if allowed to become fixed, require an operation for their correction.

Crushing nasal injuries must be treated expectantly and usually months should be allowed to elapse before reconstructive measures are attempted. (Fig. 3). The draining sinuses should be allowed to close



A
Figure 4



Figure 5
A—Slight nasal depression.



Figure 5

B—Same corrected by introduction of ear cartilage.

and infection cleared up. Cicatricial atresia of the nostrils should be corrected by a Tiersch skin graft, applied over a compound impression on a vulcanite airway. (Fig. 4). Scars should be removed from the nose if possible, and when sufficient time has elapsed, the bridge may be reconstructed.



Figure 6

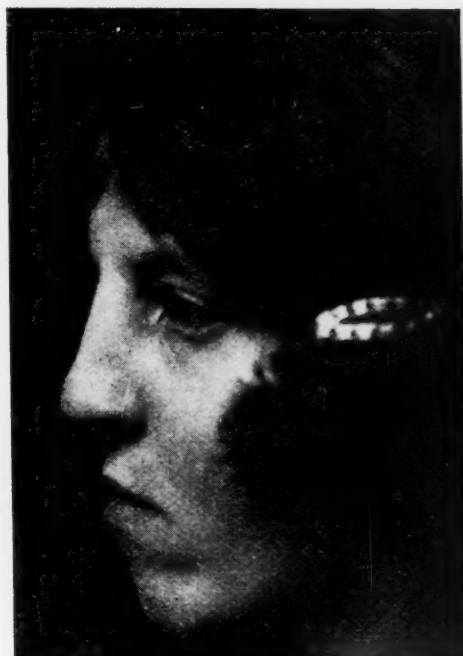
Metal model of crushed nose for use in shaping cartilage, before inserting same into nose.

For small depressions, ear cartilage is quite satisfactory (Fig. 5), but for large depressions a rib cartilage transplant is far superior.

A very helpful preliminary measure as advocated by Cohen, is the making of a metal model of the nose. (Fig. 6). This can be boiled with the instruments and the cartilage prepared and shaped to fill the de-



A



B

Figure 8

A—Saddle nose with depressed tip.

B—Same corrected by use of hinged transplant to elevate tip and straighten bridge.

fect before being inserted into the nose, through a mid-columellar incision. (Fig. 7). Where there is also a depressed tip, a hinged rib transplant should be used, giving support to the tip, as well as to the bridge. (Fig. 8). Paraffin and similar substances should never be used.

At the operation a double amount of rib cartilage is removed and the excess stored

under the skin for future use in case of accident.

Complete severance of part or all of the nose is a serious accident. The same principles apply as in the case of loss involving any mucous lined cavity, rather than distorting the features by trying to pull an unlined flap over the defect, it is always better to bring out mucous membrane and



A



B



C



D

A—Crushed nose after auto accident.
B—Profile after introduction of cartilage.

Figure 7

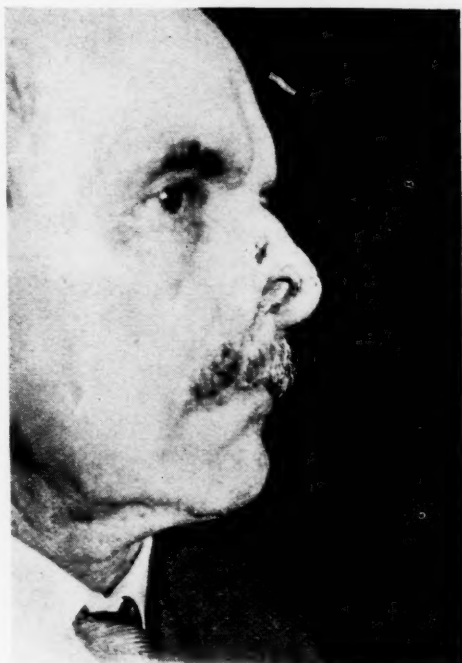
C—Front view showing depressed bridge.
D—Front view after cartilage transplant.

suture to the skin around the opening. This facilitates the use of intumed flaps, when a future repair is attempted. In the repair of the tip, alla and whole nose here



Figure 9
Perforation through tip of nose due to windshield cut.

illustrated (Figs. 9, 10, 11), the surrounding tissue was rolled in as intumed flaps and a free graft, in the first two cases, and



A

A—Destruction of one alla.



Figure 12

Wiring teeth on each side of fracture is usually useless. A fulcrum is produced at the teeth and each movement widens the fracture below.

a pedicled graft in the third case, applied to the surface as a covering. Time will not permit a complete detail regarding the treatment of these various defects.

Fractures of the jaw are becoming much more frequent, although not of particular interest to this group, nevertheless, their treatment is of considerable importance. At the outset I wish to emphasize that such treatment should only be undertaken by a surgeon with some dental knowledge or in co-operation with some dentist.

In this brief time, but a few points can be taken up. Whatever method of treat-



B

Figure 10

B—Repair by rolled flap for lining, Wolfe graft for covering.

ment is instituted the object to be gained is complete immobilization, in proper position. Surgeons sometimes attempt to obtain immobilization by wiring teeth on



A



B

Figure 11

A—Severed nose due to auto accident.
B—Restoration with forehead flap. Wolfe graft to forehead.

Figure 14

Figure 14 (at the right)
A—Method of Diagnosis in depressed fracture of the malar bone.
B—Raising of bone by heavy tenaculum forceps.
After A. E. Rockey, M. D.

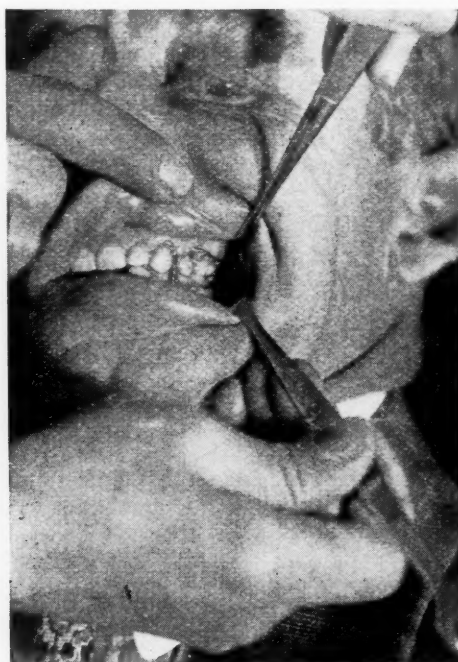


Figure 13

Loop method of inter-maxillary wiring immobilizes fragments and usually is most satisfactory.



A



B

each side of the fracture in the same jaw. (Fig. 12). This very seldom suffices—and usually does more harm than good. In general no better splint can be found than the occlusal plane of the upper teeth and therefore most satisfactory results are usually obtained if the fractures are reduced and adequate inter-maxillary wiring introduced

to immobilize the teeth. One or two wires will not suffice; at least two inter-maxillary wires on each side should be used.

For this purpose the "loop method" of wiring has many advantages. The wire is passed between, then back and around two teeth, one end passing through the loop and twisted to its fellow. (Fig. 13). Thus



A



B



C



D

Figure 15

Illustrating inturned flaps for lining and deltoid tube pedicle to cover large facial defects.

A—Loss of upper lip.

B—Lining and covering flaps outlined and resutured.

C—Lining inturned and deltoid flap covering transferred.

D—Result after return of pedicle, to arm.

the anchorage is about two teeth in each position, the loops can easily be connected by intermaxillary wires and in case of emergency the connecting wire can be removed and the mouth opened without removing wires around the teeth. Complicated fractures, edentulous jaws, etc., require special splints for each individual case and cannot be taken up here. Head bandages, plaster casts, etc., are of little

use in maintaining the correct position of the fragment.

Fractures of the malar bone are probably of next greatest importance. The deformity produced by a depressed malar bone fracture is usually quite conspicuous and can be gauged by the test by Rockey as illustrated. (Fig. 14). The applicators are pressed tight to the malar bone and past the end of the eye brow—the amount



A

A—Cleft lips should be operated early in infancy.



B

B—Photo at two years of age when palate was closed, by operation.

Figure 16



A

A—Double cleft palate and cleft lip before operation.



B

age and wired in place. Photo of patient six days after lip plastic illustrating method of relieving tension, by adhesive straps.

Figure 17

B—Pre-maxilla was reduced at seven days of

of divergence indicates the amount of depression. Such depressed fractures can usually be elevated by the use of a large towel clip inserted through the skin and floor of orbit and beneath the angle of the malar (Rockey).

Of the deformities acquired by disease involving the face, the majority are undoubtedly due to tuberculosis, lues or can-

cer. In any case the causative factor must be arrested before treatment can be begun.

Probably the most common deformity is the characteristic nose produced by syphilis. The repair depends upon the extent of destruction. A very careful diagnosis of the tissues lost, must be made. If the lining has been partially destroyed, pulling the nose up into the characteristic "pug" this



A

A—Man 26 years of age with unoperated cleft lip.



B

B—Patient two weeks after repair.

Figure 18



A

A—Notched lip resulting from scar contraction.



B

B—Same after secondary repair.

Figure 19

must be freed of its adhesions and the raw undersurface skin grafted, after which a support of cartilage may be introduced by the method described. Losses of skin covering must be supplied by flap grafts from other sources and usually the forehead skin is best adapted due to its similar color, texture, etc. A simple cartilage graft in a syphilitic "pug nose" is not usually satisfactory. The pug will remain due to the contraction of the lining by scar tissue.

The repair of extensive lesions of the face may require skin from distant parts and this can often be secured from the deltoid region by a "Gillies" pedicle. The skin of the arm is not of the same texture nor color but serves as well as any skin except forehead skin. (Fig 15).

Congenital facial deformities such as hare lips, etc., are of great importance, because of their frequency and the effect on the mental development of the child. An inferiority complex is often produced which retards the child's progress through life, unless corrected early. Lip plastics can readily be done within the first few days of life for the results are excellent and the grief stricken parents are encouraged immensely by the prospect of an immediate repair. (Figs. 16, 17). The soft palate clefts should be operated when the child is about two years of age, at which time the tissues are strong enough to withstand the operative trauma and the results

are usually much more satisfactory. Cleft palates may, however, be closed in later life with excellent results and it is also possible to greatly improve many conspicuous hare lip scars by secondary operations. (Figs. 18, 19, 20).

Nasal deformities such as twisted, humped nose, etc., have undoubtedly caused much mental anguish to the possessors. Since the correction of such deformities has been so frequently discussed it will suffice to say that most of these minor conditions can be corrected by a simple operation done from within the nose, leaving no external scar. (Fig. 21).

It is hoped that the brief consideration of a few of the various facial deformities may emphasize a few important points, namely:—

1. The great importance of careful, rather than hasty emergency treatment of facial wounds.
2. The need of careful examination of nasal injuries in childhood as well as adult life, and their immediate correction.
3. Cartilage transplants should always be used rather than paraffin for filling depressions.
4. A large wound into a mucous lined cavity should have mucous membrane sutured to skin around the edges, to facilitate future repair.
5. Mandibular fractures are usually best treated by inter-maxillary wiring.
6. The typical syphilitic "pug nose"



A

A—Failure of union after double hare lip operation.



B

Figure 20

B—Same two weeks after secondary repair.



Figure 21

Illustrating various degrees of hump noses before and after correction.

must have a lining restored before cartilage graft, to produce best results.

7. Hare lips should be corrected within the first few days of life. Soft palate operations should be delayed until about two years of age. Secondary correction should be done at any age, rather than carry an unsightly scar through life.

DISCUSSION

Dr. A. E. Owen (Lansing): I am sure this is a very comprehensive treatise of this line of work. I have found in doing facial repair work that troubles sometimes arise by too great pressure on the parts replaced. I think that was my first lesson in doing that work, getting too firm a pressure.

There are other phases of the work which Dr. Straith brought out; the study of the case before making any transplants I think is pretty valuable because no matter how artistic anyone is, if we had a chance to study it beforehand, our results would be much better.

He is very fortunate in having had his preliminary work along dental lines so that he is fully prepared to do all the dental work with the plastic work. I find that very, very difficult work to handle and always try to handle it in conjunction with a dentist.

Dr. M. Kessler (Bay City): Fractured nasal bones happen quite often in little children. I have occasion to see quite a few of them. Often chil-

dren get hit when playing baseball, perhaps with the bat. I have had occasion to see two or three of them caused by someone batting with the right hand, and there was a depression of both nasal bones and the skin torn right down to the bone.

It is an easy matter to take care of these fractures very soon after the accident, as Dr. Straith mentioned, elevating the bone by proper internal packing, but I add the Joseph nasal clamp to it, which forms the shape of the nose back in the same way as it was before the accident happened. I take eight or ten days for it and the shape of the nose is restored and, taking out the packing after this length of time, the bones stay in their proper place.

I had occasion to take care of one cleft soft palate in a patient about 32 years old. There were a few attempts made before I had the patient which, but for one reason or another, they were not very successful, but even in a person 32 years of age, if we have a chance to do it in the proper conditions, it is possible to close the soft palate right from the junction between the hard and soft palate down to the tip of the uvula, but in this case we could not restore the voice. She had difficulty in swallowing and she had liquids come through her nose quite often.

Dr. R. E. Mercer (Detroit): The doctor spoke of using a certain method, but I think the method of Brown, of Milwaukee, is still better than that he is using, and that is using No. 2 linen thread with a cambric needle. He spoke of never using paraffin. I must confess in years past I have

used paraffin a few times in depressed deformities with a good base, with very good results and the results have persisted to this day, and the paraffin has caused no trouble. I don't mean that I would advocate its use now, especially where you need something to hold up the tissue, but where there is a good base, it used to work well in the past.

I should like to ask if Dr. Straith has had any experience with the use of Pollock's method, using ivory.

Dr. Charles H. Baker (Bay City): It occurred to me when the doctor was speaking of the wiring together of those jaws, what is he going to do in a case where there are no teeth and also what my solution of that problem might be. I can see the absolute necessity of doing away with any fulcrum by which the muscles that move the lower jaw will pull the edges of the fracture apart and I am wondering if the doctor would solve that problem as I might, by subcutaneous wiring of the lower end of the fracture.

The matter of transplants of skin is one which is a continuing problem with every case that comes to you. The syphilitic cases frequently have so much destruction of skin in the neighborhood of the part you want to replace, that you can't get satisfactory forehead flaps or flaps in the cheeks, and in that case you must resort to flaps from the shoulder, or arm, or whatnot.

A good many years ago before we knew very much about the methods of plastic surgery we now have, a case occurred in Bay City in the practice of Dr. Erwin, who was certainly an ingenious surgeon of his time and one of the old school men. It was a case of syphilitic loss of the end of the nose and depression, and he proposed to build this woman a nose from the tissue of the forehead.

In order to get sufficient tissue, he had to go quite a way up into the scalp to bring down enough to make a nose and after the transplant was in place and well adherent and growing for a long time, when the woman touched the end of her nose, she felt it up in her forehead, and the hair from that portion continued to grow and she was having continually to remove a moustache from the end of her nose.

Dr. Carl McClellan (Detroit): I should like to ask if Dr. Straith has anything new to offer for complete congenital atresia of the nasal pharynx. I have in mind a case of a Negro girl, syphilitic, who has been operated on four times. She has complete congenital atresia of the nasal pharynx with a corresponding narrowing of the nasal arch, and last time an opening was made through the hard palate, and a large opening was made, into which you could insert your thumb, and we watched that gradually close until it completely closed.

She had the beginning of deafness in one ear and absolutely no breathing through the nose and she had a mastoid on one side as the result of her closure, so it is very necessary that we try to get something through the throat, but with a syphilitic background, the scar tissue seems to come back in spite of us.

Dr. C. L. Straith (closing discussion): I guess my bet was a good one that a diversified paper would produce discussion. I appreciate the kindly way you have taken these few remarks. I am sure one can hardly take up all the things one might imagine would arise in your minds in a paper, and it is gratifying to have them brought out in a discussion.

Dr. Kessler's remarks about fractured noses I think are perfectly right, that they should be

treated early in childhood and depressed fragments should be elevated. The use of Joseph's clamp is very fine. I have two of them of different types, but I find that a lead splint modeled after Cohen's splint seems to work quite well.

Dr. Mercer, I noted suggested linen suture material. I am familiar with Dr. Brown's work. He does it very beautifully, using very fine linen, between his horse hair sutures and it is a very fine method, although it seems to me that in my hands horse hair works better. The linen suture seems to absorb a little more secretion than horse hair and I get a little more destruction around the individual stitch than I do with horse hair.

About paraffin, I think the doctor is perfectly right. It was used years ago but I think few people are still using it. Regarding ivory, I had a very interesting conversation with Dr. New at Rochester recently. Some time ago he published an article regarding the use of celluloid which is somewhat similar to ivory and he has regretted the publication of that article possibly more than any other, so he tells me, although he experimented on dogs and animals, inserting the material for sometimes three or four years before he actually tried it much on patients, but he told me this, that his patients began coming back after they had a transplant, which in his case was celluloid. The patients began coming back after about two years and he says that now he doesn't feel that he has any of those transplants in existence. They have practically all come back to roost and he has had to remove them.

So I think most people feel that way about foreign bodies in any form, ivory or celluloid. Joseph, in Berlin, I believe still uses the ivory, but most people use cartilage.

Dr. Baker suggested the treatment of the jaw fractures. As I mentioned, the intradental wiring is the most applicable to nearly all types of fractures, but in some cases there are individual problems that arise. Just the other day we had one of these edentulous cases. He had just had his upper teeth extracted and while in an argument had his jaw fractured in two places, so we couldn't use a Gunning splint, which we often use in an edentulous mouth. A Gunning splint is like two plates fastened together without teeth, (illustrating on blackboard), leaving an opening in the anterior part of the mouth, through which the patient may take nourishment.

He had six lower anterior teeth so we took an impression of the entire lower jaw. We made a vulcanite splint, going over the whole lower jaw, with a part which depressed the posterior fragment into proper place, so that we had a very nice alignment. We then cemented this on the lower anterior teeth. If there are no teeth in the lower jaw, I often use Dr. Ivy's method of circum-mandibular wiring. An impression is taken of the edentulous jaw, a plate is made without teeth and silver wires passed around the mandible and over the splint in about four places. These wires are brought out through small incisions below the mandible and the splint forced down into proper position by twisting these wires. The wires are left on about six weeks.

The doctor also mentioned the restoration of a nose. It is seldom that there is so little forehead skin that a nose can not be reconstructed from the forehead skin. The Indian method has been in use for two or three thousand years and it is by far the best method because of the fact that the forehead skin is so much like the other skin and rather than remove a large piece and distort the eyebrow, we simply Wolfe graft it with skin

from the abdomen, as this woman showed, and replace that skin with abdominal or other skin.

Dr. McClellan mentioned the fact of atresia palatae which is a very interesting topic. I find many people in years gone by have had the same difficulty. The old method was to put a silver wire in and twist it until it gradually cut off the tissue.

My old chief, Dr. Brophy, used this method (illustrating on the board). He would insert a square piece of guttapercha with four holes in the corners and heat it slightly and bend it to take the shape of the curve and run two sutures through the corners of the piece through the nose, one through each nostril, tying them over a piece of rubber tube.

I have had three cases in the last year of atresia palati; one a woman about 30 years old who had a tonsillectomy done in England; she had complete atresia of the palate. The pos-

terior pillars had grown together and down so far that she had simply a little slit at the base of her tongue about three-quarters of an inch long and one-eighth inch wide.

In her case I made an incision where the end of the palate should be and freed it up underneath. I took an impression with an improvised tongue depressor over which was a little modeling compound. Into this impression I then put two safety pins with loops out. Sutures were tied to the loops and brought out through the nostrils. The impression was covered with a Tiersch graft and pulled into place by the sutures. A very nice result was obtained. Another boy two months ago that had a resulting atresia after tonsillectomy I did the same thing except in this boy I rather hesitated to use the skin graft, so I left in a lead plate with modeling compound over it, shaped to the naso-pharynx and tied it in as before. The third case, probably a luetic, I did not operate on.

SHALL THE PHYSICIAN TELL THE TRUTH?

The problem involves particularly those cases in which owing to peculiar circumstances the physician cannot avoid speaking. Fortunately for our peace of mind avoidance is perhaps generally practicable, but sometimes we cannot escape. For the purposes of this discussion, the field is circumscribed within narrow limits, and two answers to the question stand out.

The first is "Yes, certainly." It is a refreshing reply, so clear cut, so trenchant; no nonsense about that, no foggiess about ethics there. But the practice of this injunction leads the physician into difficulties so great that he may think the only way out, is "to lie about it."

The second reply is "That depends." The explication of the dependence involves us in difficulties only just less than the first reply.

"What is Truth?" said jesting Pilate and would not stay for an answer." We avoid the company of Pilate, and prefer to be classed with those of whom it was said "They had their own notion of truthfulness based on the exceeding difficulty of finding truth and the still greater difficulty of impressing it when found."

The first difficulty is in finding the truth. "You have cancer and are going to die." Certainly this is true if we may believe the pathologist, and the elementary textbooks on logic, which inform us with such convincing insistence apropos of Socrates, that "man is mortal."

Suppose the patient says, "Is it cancer?" Is it not true to say, for example, "Well of course it is some kind of a tumor, but cancer nowadays means quite a number of different things, and perhaps some people might call this cancer. But you know

we do not think about cancer today quite the way people used to think about it. We are not as hopeless about it as people used to be, and every year we hear of more and more people who are cured of cancer. So that even if this should later prove to be cancer, maybe it is not as bad as some people think. I have seen people who certainly had cancer, and are perfectly well today. I call them cured."

If perchance, it falls to the lot of the physician, as it may come to any of us, to answer the question of the patient, "Am I going to die?" when the patient is, beyond peradventure, sick unto death, the physician should as one brave man to another, perhaps not so brave, say "Yes, I think so." Yet not in those curt casual words, but with such gentleness and wisdom as is his, he should sit down and as a friend converse, according to his insight into the needs of the dying. But this is the duty of the priest! It is a curious fact that the true physician has in him something of the priest also.

The whole truth as we approach it in the practice of medicine, is not comprehended within a few fixed formulas which apply to all cases. Life leads us to make a vast penumbra of formulations, perhaps not very clear, by which we vaguely but no less certainly approximate the truth. It ill becomes the physician to forget this field of experience.

Yes, by all means, the physician should tell the truth. But first let him be sure he has found it; and let him not think, the nouveau sage, that by his smug formulas, he adequately represents it. —New England Medical Journal.

RADIOLOGY AS A MEDICAL SPECIALTY

As the result of an investigation of radiology as a medical specialty W. Edward Chamberlain, San Francisco, asserts that the problem of lay laboratories will not disappear until the profession recognizes that radiology is truly a branch of medicine, and that it is fundamentally wrong to send patients to lay laboratories. There will not be a satisfactory influx of young medical graduates into radiology, nor a satisfactory development of radiology in the hospitals, until the relations between hospitals and radiologists have been improved. The hospital radiologist must be offered an opportunity for self-development comparable with that of his brothers in medicine and

surgery. Under the present scheme of things there are many instances of the exploitation of radiologists by hospitals. The amassing of profits by the hospital from the radiologist's services constitutes exploitation whenever such profits exceed what can be justified by the material outlay and investment in apparatus and space. There is need for a revision in the fee schedules for radiologic services, because most of those now in operation place the radiologist in the position of selling celluloid by the square inch instead of rendering a type of medical consultation service.—Journal A. M. A.

TUBERCULOSIS IN INFANCY AND CHILDHOOD*

HARRY C. METZGER, M. D.

In the true sense of the word, tuberculosis is a disease acquired during childhood and often recovered from at this time. There is no natural immunity to the disease—all children are susceptible to the tubercle bacillus. We can get an idea of the prevalence of the disease from various hospital statistics. Seven and one-tenth per cent of all children admitted to Cook County hospital were suffering from tuberculosis. As an infection, it is more prevalent than this. A series of 848 cases reported by Hamburger in Vienna, show tuberculous lesions in 39.5 per cent. Hand of the children's hospital of Philadelphia found 34.6 per cent with similar lesions. Cornet reports a series of 1,542 cases with 17.5 per cent showing tubercular changes.

In New York, it was noted that about 10 per cent of all children became infected by the end of the first year of life. By the time a child reaches puberty, various statistics show that from 40 to 90 per cent have become infected. In Vienna, Hamburger and Monti found 94 per cent were infected by the age of 12. Veeder and Johnson found 44 per cent were infected by the 10th year. Myers in Minneapolis found 41 per cent infected on attaining puberty.

Social and economic conditions influenced the prevalence of the disease, as was shown in the marked increase in European countries following the last war. As far as inheritance, we can say that a predisposition to the disease seems inheritable. The Indians, Irish and Negroes in this country have a predisposition to the disease. Certain infectious diseases as measles, whooping cough and influenza, predispose the individual to the infection. In regard to sex, there seems to be little difference except that there is a tendency for the disease to be a little more common in the female above the sixth year of life.

While most observers are of the opinion that tuberculosis is an acquired disease, congenital tuberculosis cannot be entirely omitted for consideration. There are 113 authentic cases of congenital tuberculosis on record. We can readily conceive of the possibility of the tubercle bacillus passing through the placental filter producing an active lesion in the fetus without involving the placenta itself. Because of its infrequency, we will consider the acquired type entirely.

Tuberculosis as a disease, dates back to the time of Hypocrates in the 17th century. Sylvius recognized nodular deposits

associated with the disease. At this time it was called consumption. In 1819, Lennec showed the relation of enlarged glands to tuberculosis. In 1865, Villemin showed the communicability and infectiousness of the disease. He injected animals with diseased tissue and sputum of tubercular patients and produced the disease in animals. In 1882, Koch isolated the organism, injected animals and produced the disease, later recovering the organism again from experimental animals. This established tuberculosis as an infectious disease, not as a constitutional disease. Later Theobald Smith separated the human organism from the Bovine type, the latter bacillus being a shorter, thicker, straighter rod, taking a uniform stain.

The bovine type of infection is of less importance than the human type. The bovine organism produces a milder infection than the human tubercle bacillus, having a predilection for the cervical glands, intestines and bones. Its frequency varies with different observers. Calmette reports 4 per cent cases; Park, 25 per cent, and Rosenou, 49 per cent in children under 5 years of age. Clinically, it is of little importance to distinguish the two types.

There are numerous classifications of tuberculosis, but the most simple and complete one is probably that based on the pathologic sequence of the disease. According to Hamburger and others, there are four stages of tuberculosis. The first stage is that of the primary focus. This is most frequently found in the lung, in over 90 per cent of cases, the remaining cases showing it in the skin, mucous membranes, intestines and genitalis. The second stage is that in which we get a hematogenous or lymphogenous metastases from the primary lesion. In this stage we get our tubercular adenitis and miliary involvement in the various organs of the body, bone, intestines, etc. In the third stage, we get a localized extension of the primary focus. This is called a bronchogenous or intercanalicular metastases from

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the primary focus. In this stage, the body possesses a definite immunity to the tuberculous infection and presents only a localized extension of the process, without a lymphogenous or hematogenous metastases. In the fourth stage, the body has lost its immunity to the disease, and so we get a hematogenous or lymphogenous metastases from the primary focus to various organs in the body. In children, we most frequently find the first two stages of the disease and less frequently, the third stage.

Whether the organism gains entrance to the body through the intestinal route or the pulmonary, is still a controversy of opinion. It is true that many more bacilli are swallowed than inhaled, but the lung has a much higher predisposition to infection than the intestinal tract. The lung is a perfect culture media for the growth of any organism because of its abundant blood supply. The lymphatic system of the lung on the other hand, is inadequate and cannot cope with the infection. Von Pirquet states that 95 per cent of tubercular infections develop as a result of inhaling the bacillus into the lung. V. Behring, Calmette and others believe the tubercle bacillus gains entrance by way of the intestinal tract. Most recent workers are inclined to favor the inhalation route.

Let us now consider the various stages of tuberculosis. In the first stage, the bacillus is aspirated into the lung similar to a foreign body. This explains the frequency of the primary focus in the lower right lung. Following aspiration, the tubercle bacillus sets up at once a primary alveolitis and a specific tissue reaction. There is a pouring out of lymphocytes and a formation of epithelioid cells and giant cells. Almost at once, the process metastasizes to the regional lymphatic glands. Theoretically, the foreign body consisting of the tubercle bacillus and serofibrinous exudate with lymphocytes could be coughed up, which would explain why we occasionally find enlarged regional lymph glands without any evidence of a primary focus. The primary focus undergoes the various changes of all tubercular lesions, caseation necroses and finally calcification and scar tissue formation. There is usually a marked peripheral inflammation around the primary focus, especially in infants, caused by the formation of antibodies to the tubercle bacillus. The regional lymph glands in the hilus are enlarged then from two causes; first, from the setting up of a primary focus, and secondly, due to the peripheral inflammation

in the lung. The primary focus with the enlarged regional glands is called the primary complex of Reincke. After several years when the primary focus undergoes calcification, it forms the Ghon tubercle. The primary focus is characterized by lying directly beneath the pleura, explaining the frequently complicating pleuritis in the first stage of the disease. Hamburger calls this the subprimary pleuritis.

The body is changed following the setting up of a primary complex, so that this same process cannot take place again in spite of re-exposure to the tubercle bacillus. This stage of tuberculosis corresponds to the incubation period of infectious diseases. The duration is from six to 12 weeks, and during this time, the Von Pirquet reaction remains negative. Following the incubation period, a state of allergy is set up in which the specific antibodies are distributed throughout the body causing a specific reaction to tuberculin. For the time being, the child is in a state of hyper-allergy, which means that the body is more sensitive to tuberculin tests, because of the over-compensation of the body with the over-production of antibodies. This state usually corresponds to the second stage of the disease when there may be a metastases by way of the lymphatics or blood stream if there is a sudden loss of body resistance. This hyper-allergic state gradually disappears as the local process recedes, and the body remains in the allergic state the rest of the time, permitting only local extension of the process. Should, for any reason, the child lose its natural immunity due to intercurrent disease or malnutrition, a state of anergy would exist and there would be a generalized spread of the infection, which would correspond to the fourth stage of the disease. Thus we see that after the primary focus is once set up, we are dealing with a changed human organism. Its reaction to repeated exposure to the tubercle bacillus, no longer will be the same, but will depend on the natural resistance of the body. This is quite important in considering prophylaxis and therapy.

Our diagnosis of tuberculosis depends upon four main features; i. e., the history, the physical examination, the X-ray and the tuberculin tests. We have said that tuberculosis is an acquired disease, hence the history of contact with a tuberculous surrounding is important. The symptoms are not at all characteristic in infancy, and point merely to a chronic infection. The most common symptoms complained of are

underweight, lack of appetite, irritability, irregular temperature. In infants with the tendency of the regional glands to enlarge considerably in size, we usually have a typical expiratory dyspnae with a tendency to spasmodic cough. Sweating and hemoptysis are rarely found in children. Failure to gain with an indefinite fever, are the two important symptoms in infancy. With the lymphogenous or hematogenous spread of the disease, we may get symptoms referable to the gastro-intestinal tract or central nervous system.

The physical findings are variable. We may find interscapular dullness to percussion. On auscultation, moist rales may be present. D'Espine's sign or the transmission of bronchial breath tones and whispered voice sounds below the third dorsal vertebrae posteriorly, is not definite, and may be absent.

The X-ray findings are the most important in making the diagnosis of tuberculosis. The primary focus may not show up for several years or until complete calcification has taken place. However, the enlargement of the hilus area and regional lymphatics show up early. The primary complex is found most frequently in the lower two-thirds of the right lung, less so in the right upper lobe, left lower, and left upper lobe. Apical tuberculosis is not a disease of childhood but rather a tertiary lesion found in adults. The hilus glands are enlarged in the following order: The right inferior broncho-pulmonary, right superior broncho-pulmonary glands, and the tracheo-bronchial glands. Other shadows seen on X-ray are the shadow of Eisler and Schluko which is usually due to a combination of an inter-lobar pleurisy with a peripheral inflammation around the enlarged regional lymph glands. This later leaves a fine line of an interlobar pleurisy described by Hotz. The miliary tuberculosis common in infancy gives a typical X-ray picture, showing small white patches scattered throughout both lung fields of equal or unequal size, depending on whether it is a spread through the blood stream or by way of the bronchi.

The sputum examination is not important in small children or infants. The examination of the stool and urine for the tubercle bacillus is important in infancy and early childhood.

The diagnostic skin tests are quite essential. There are four tests; i. e., the percutaneous test (Moro), the cutaneous test (Von Pirquet), the intracutaneous test (Mantoux) and the subcutaneous. The

Pirquet and Mantoux reactions are the ones usually used. A positive Pirquet test during the first two years of life means an active tuberculosis process in the body.

The prognosis of the disease depends upon the age of the child and the localization of the lesion. Statistics show the mortality to run as high as 80 per cent during the first year of life. From 10 to 30 per cent of the mortality of infants during the first two years of life is due to tuberculosis. During the first two years of life, tuberculosis affects the lymph glands, lung and pleuro mainly. In the pre-school age, generalized tuberculosis with a terminal tuberculosis meningitis is common. In the school age, cervical adenitis tuberculous peritonitis becomes more prevalent. The prognosis is good in glandular tuberculosis, bones and joints, and skin tuberculosis, and less favorable in pleural and peritoneal involvement. Intestinal tuberculosis seldom heals, and meningeal and miliary involvement are always fatal.

The therapy in tuberculosis consists of dietary measures, improvement of the hygienic surroundings, and heliotherapy. Modern observers have noted that a high fat and high protein diet, with one relatively low in carbohydrates, is beneficial. Heliotherapy is indicated in all forms of tuberculosis except the pulmonary type. Good results have been obtained with pneumothorax treatment in pulmonary tuberculosis in the tertiary stage. The problems of tuberculosis are first the avoidance of infection during early infancy, keeping up the normal nutrition of the body, and the prevention of the loss of immunity of the organism.

Immunity to tuberculosis can only be obtained by a previous infection. For this reason, it is true when we say that child is more endangered who has not yet come in contact with the tubercle bacillus, than one who has, and has recovered from the same. This brings us to the question of prophylactic immunization for tuberculosis. Koch, Pasteur, Dixon, Theobald, Smith, Calmette, Baldwin, Williams and others have worked on various methods without success. Just this past year, there has come under discussion the prophylactic vaccination of children. The bacillus Calmette-Guerin is used, or better, the B.C.G. vaccine. This is a bovine type of bacillus, at one time pathogenic for cattle, guinea pigs, and rabbits. By repeated cultivation on bile potato medium, it had lost its virulence. It is claimed by Calmette and his workers, that this bacillus has the

power of forming localized tubercles, producing antibodies, and causing an immunity to a virulent human bacillus. Other observers as Noble, Gerlach, Kraus, and Selter, claim this organism may become virulent by repeated animal passage and that it is not without danger. Petroff was able to isolate two strands of organisms from the B.C.G. culture—the “R” and “S” colonies, the “R” colony causing tubercles that heal, the “S” colony producing a progressive disease and death. For this reason, it seems inadvisable to vaccinate infants during the first week of life for tuberculosis with the B.C.G. vaccine as advocated by the French school. Our only means of preventing high infant mortality from tuberculosis, is to remove the child

the first two years of life from direct exposure to tuberculosis. By keeping up the natural immunity and normal nutrition, the human body is able to combat exposure to the tubercle bacillus, if it is not of an overwhelming nature and providing it does not come during early infancy.

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EYE FINDINGS IN CERTAIN INTRACRANIAL COMPLICATIONS*

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The intracranial lesions to be considered, in which the fundus oculi is often involved, are as follows:

1. Skull fractures and injuries.
2. Extra dural hemorrhages and hemorrhages into the meninges.
3. Hemorrhage intracerebral.
4. Brain tumor and abscess.
5. Basilar gumma and tuberculosis.
6. Serous meningitis—Basilar type.
7. Pituitary abnormalities.

These intracranial lesions, with their associated involvement of the contiguous or adjacent brain areas, may, speaking in general terms, give rise to the following implications:

1. Either the intra or extra ocular musculature or both is implicated in the way of paralysis or paresis.
2. The fundus oculi is the seat of an accompanying lesion, principally a papilledema or an optic neuritis or both. Vascular lesions and secondary retinal and chorioidal changes.
3. The form or color field (one or both) independent of any fundus lesion per se are infringed upon. The hemianopic (homonymous type) field is the more characteristic for the larger number, while the bitemporal and binasal fields are characteristic of but a very limited number of intracranial lesions. The latter is due to a

single or dual lesion at region of lateral chiasm angles. The former is often caused by pituitary or basal lesions in region of posterior chiasmal crus. The homonymous fields result from optic tract lesions or from optic radiation or from primary center or cuneus lobe lesions.

It is due to the close anatomical relationship between the globe and the brain that the former is so often pari passu implicated in brain lesions. Not only is the general cranial nerve association intimate, but the blood and lymph supply are likewise closely connected. So also is the sympathetic system of brain and eye very intimate. The entire cranial ventricular system is, on account of the optic nerve vaginal sheaths, very closely associated by intercommunications.

The above generalization will permit the following:

1. In the degenerative brain processes such as the meta luetic diseases, (tabes and general paresis), give rise to the characteristic optic atrophy (usually, though incorrectly called primary atrophy).
2. Because of the fluid stasis either within the brain or optic nerve sheath or both, simple papilledema supervenes.

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3. Because of the extension of the inflammatory processes at the base of the brain, either into the optic nerve sheaths or into the nerve proper (as a neuritis, perineuritis or interstitial neuritis), the so-called optic neuritis and retrobulbar neuritis.

4. All cranial lesions limited to the basilar portion of the visual tract—whether of an inflammatory or mechanical character, do not at first produce visible optic nerve or fundus changes, but cause changes in the field of vision, ranging from simple constrictions (form and color) to complete blindness. This implication can be either unilateral or bilateral with or without central scotomata, being near the chiasm—characteristically bitemporal hemianopsia—if at the optic tracts it is homonymous hemianopsia. The latter type of field also prevails in the lesions posterior to the primary optic centres up to and into the cuneus lobe.

It is seemingly strange that the nerve in optic neuritis, retrobulbar neuritis and papilledema in any of these lesions can return to either normal or almost normal, providing the basic lesion itself is corrected. If a return to normal does not occur, then a secondary nerve atrophy ensues—a so-called white atrophy in contra distinction to the primary atrophy—either is so well understood further description is superfluous. However, the more moderate this inflammation and the farther back it is in the nerve trunk the more does the neuritis atrophy simulate the so-called primary optic atrophy, and it is then of the descending type.

No one of the nerve head involvements is due to any particular intracranial complication, and therefore it is of itself no diagnostic criterion other than that an intracranial lesion exists. Certainly these optic disk findings are not to be taken as a definite localizing symptom. Should, however, the disk lesion be strictly confined to one eye than the causative cranial lesion is on the same side. If the disk lesion is bilateral, the more pronounced one does not signify that the cranial lesion is on that same side. Often times it is contralateral and the more advanced one also may be contralateral. In case of brain abscess, in which the element of toxicity is usually a prominent feature, the optic neuritis or choked disk may be homolateral.

Usually upon the subsidence of the brain lesion, the fundus lesions abate; only in sinus thrombosis or otitic metastatic brain abscess the nerve head often becomes af-

ected after the original cause has been surgically remedied. This is due to the toxic element in such cases. Even the choked disk abatement in brain tumor or abscess is not a definite indication that the brain lesion is on the mend. This apparent recession of the edema may be due to the atrophy of the nerve fibers and consequent shrinking of its elements. Therefore one must carefully weigh the findings before drawing definite conclusions as to location and etiology of the brain lesions.

The only diagnostic value of a papilledema is that an increased intracranial pressure exists—provided an intraorbital lesion, a cardiorenal, or an associated haemic dyscrasia can be excluded. On the other hand the persistence of a papilledema beyond a reasonably short time is a veritable cause for a cranial decompression; or, in the absence of a tumor, repeated spinal fluid drainage. This is a clinical procedure to follow beyond any facts to contrary notwithstanding. In case of decompression, the side of the more advanced ocular involvement is chosen—other things being equal.

It is a fallacy to determine the intracranial pressure by the spinal fluid pressure for the following reason: There is not in every individual a free communication between the several cranial ventricles (dural, arachnoidal and other spaces) and the spinal canal—hence a low spinal fluid pressure does not necessarily signify a corresponding low intracranial pressure and vice versa. In the normal individual the intracranial varies as much as does the normal intraocular. Brain swelling and increased intracranial pressure are not one and the same. The reformer displaces the intracranial fluids sufficiently, while the latter cannot displace the former as markedly.

The distinction between a choked disk and an optic neuritis is as follows: Both are signs of active pathology, the former a swelling without any initial inflammatory manifestations, the latter with. Fundamentally there is this difference. Choked disk is consistent with a normal functioning retina and nerve—optic neuritis, not. If a papilledema per se leads to permanent functional loss it is due to an engrafted neuritis and its subsequent atrophy. It is my clinical observation that an optic neuritis from any cause whatsoever, existing for a brief time will never permit a return to full normal function—while a true choked disk, existing even for a longer period than a neuritis, full func-

tional restoration often ensues. Necessarily it is understood that the underlying pathology in either instance has been removed. When the field or visual acuity begins to decrease in a papilledema at that very moment a neuritis has been engrafted.

As patients frequently do not complain of visual disturbances when a papilledema exists, it is of the utmost importance to frequently examine the disk in case of the suspected intracranial lesions mentioned, in order not to unduly delay a decompression. Too often it is delayed too long, and done after irreparable nerve changes have taken place. A decompression will not interfere with any other ultimate surgical procedure necessary, but it does safeguard your optic nerve. These remarks hold true whether or not there are any localizing symptoms to favor right or left decompression. Generally it is the better surgical judgment to operate on side of greatest edema, and the greater visual reduction, if such exist.

Hemianopsia, whether transient or permanent, is a valuable localizing symptom for tumor or abscess of the temporo-sphenoidal lobe. Either is likely to impinge upon the association fibers running between the cuneus lobe and the geniculate bodies—the so-called Meyer's tract (cuneopulvinar). This tract is often caught between the tumor or abscess and a distended ventricle. Repeated examinations of both form and color fields are necessary, as these fields vary from day to day. The patient is often not cognizant of either field constriction.

Temporary obstruction of the cerebral circulation may produce an intracranial pressure, giving rise to dilated and tortuous veins and extreme disk redness. The entire process may quickly subside. Simple congestion of the disk from above cause does not necessarily lead to papilledema.

Papilledema appears almost instantly when the central cerebro-spinal circulation is suddenly blocked, producing a so-called obstructive internal hydrocephalus.

Generally speaking, brain abscess does not produce the intense papilledema as does a brain tumor.

The fluids of the posterior half of the eye are discharged into the optic prolongations of the leptomeningeal paths of the cerebro-spinal circulatory system. The intraneural, pericapillary and perivascular sheath of the retina and optic nerve are not true lymphatic spaces, though un-

doubtedly some lymphatic channels do exist at the orbital apex of this system.

Normal cerebro-spinal fluid does not coagulate. When its chemical properties are altered by irritation or inflammation it can more or less coagulate. It is this altered fluid, in any of the above spaces, which causes the changes in the optic disk—hyperemia or moderate edema or even neuritis.

DISCUSSION

Dr. W. R. Parker (Detroit): I wish to state at the outset that Dr. Suker has great advantage over me and in opening the discussion on my paper he knew he was going to do it and came loaded and I didn't know it. He comes with a paper in his pocket and I come with no discussion ready so I am seriously handicapped. I do appreciate very much the paper that Dr. Suker has given though I don't agree with him entirely. I probably would agree with him if I had time to think it over and study the thing out carefully. For the most part, however, I do agree with him.

We get choke disk in cases in which we are able to study carefully in at least four conditions:

1. In brain tumor;
2. In cases of multiple sclerosis, of which there are some ten, fifteen, or twenty cases on record in the section which carries the blood vessels;
3. In cases where the edema leads to a little swelling and pressure on the vein; and
4. Another condition which leads to choke disk is occasionally a case of sarcoma involving or surrounding the posterior section of the globe and involving the optic nerve.

There is one more and that is in nephritis. We have all seen cases of choke disk in late nephritis which has been of the kind not infrequently diagnosed as brain tumor because of the presence of indications of brain tumor.

There has been a study made in Denmark in the last few years of cases of nephritis with choke disk and without a single exception they found increased intracranial pressure in all cases that showed any amount of choke disk, so the choke disk is probably due in that group to increased intracranial pressure, as Dr. Suker has said.

In general from these groups of cases it would seem that choke disk is produced by a pressure on the optic nerve at the point which carries the blood vessels. In the case of brain tumor this is due to the several spinal fluids being forced into the sheaths and the pressure is produced. In the case of multiple sclerosis it is produced by a local swelling. In the other cases it is a mechanical process.

So far I am entirely in accord with Dr. Suker. The only point which I wish to question is the importance he lays on a one-sided papilledema as a diagnostic point of the tumor being the same side and I don't believe it has anything to do with it.

Some years ago I carried on a series of experiments on dogs and monkeys inducing artificial tumors and measuring the appearance or noting the appearance and measuring the amount of choke disk in the series of cases in which one eye was trephined and the other left normal. The tension in one eye was materially diminished in the dogs, nine dogs and three monkeys. Increased intracranial pressure was introduced by artificial means and in every single instance where there was a marked development in the tension of the

two eyes, the edema appeared first in the softer eye.

It would seem then that the appearance of choke disk in cases of intracranial pressure was purely a mechanical process. If there is an increase in tension in the skull, that pressure will be exerted equally in all directions. The presence of that pressure will manifest itself along the paths of least resistance and if the tension of the eyeball is one element in the resistance at the papilla, then the softer eye will be blown up first.

One of the most important points that Dr. Suker made was when he said that the behavior of your choke disk has nothing to do with your progress of your tumor. Choke disk is but an incident in the life history of a brain tumor. Your papilledema appears. It goes up to a certain definite amount, never more than seven or eight diopters. Gradually atrophy occurs and the process recedes and in the late cases of brain tumors you may have only a secondary atrophy and no choking at all.

So, to make myself perfectly clear, I wish to state that in my opinion the appearance of choke disk on one side may show that the eye on that side is softer and is not a localizing sign.

His enthusiasm about the necessity of some temporal decompressions I agree with in part. These cases, if they are not relieved, will ultimately lead to blindness, and if local symptoms are not present and we cannot definitely locate a definite attack—at the present time Dr. Burn may not agree with me in this statement—it seems to me that the technic of brain surgeons has gone 'way ahead of our ability as neurologists to locate tumors. The technic of brain surgery today is marvelous. Our ability to locate many of the tumors is far from perfection.

Dr. E. J. Bernstein (Detroit): Just before the session I reviewed an interesting case with Dr. Suker.

An interesting case came in the day before yesterday; a young girl of eighteen went to sleep at seven o'clock last Friday night and woke up Saturday morning blind in her right eye. She came to see me Monday afternoon and she has nothing to be seen in the fundus except a slight haziness

in the nasal side of the disk. She has a total loss of field vision except for fifteen degrees and a slight temporal retension, not more than about five degrees more. She has absolutely no other symptom except that the pupil contracts on slight stimulation and then dilates.

I gather from what Dr. Suker said that those cases are practically hopeless, indicating a central lesion probably on the same side. What can be done and am I right in fearing that those things are hopeless?

CLOSING DISCUSSION

Dr. G. F. Suker: I think I appreciate Dr. Parker's remarks very much indeed, however, I perhaps misunderstood, or he did. I limited myself to lesions in the brain, but as regards the unilaterality of choke disk indicating that the lesion is on the same side, I must confess that it is a very valuable sign because of the post mortem findings in the Cook County hospital, and I must assume that to be the guiding factor and particularly if you have your general examination, such as tuberculosis and your syphilis, you have the choke disk on one side and the other disturbances that go along with it, the mental disturbances and perhaps the individual disturbances cause a complication of that nerve on one side, and the only reasonable conclusion is that you have a one-sided lesion because the other eye remains perfectly normal and you cannot have a choke disk unless that other nerve is also involved.

However, I grant you this fact that a unilateral choke disk, if his condition is not taken care of, will eventually involve the other side also. You can have blindness in one eye a long time before the other eye is involved, depending on whether it is extracellular or intracellular. That choke disk that exists in nephritis is not a true choke disk. It is a neuritic choke disk. It is inflammatory, and not a choke disk in the sense of the constriction of papilledema, because in no case, and we have quite a few of these nephritic papilledemas in Cook County hospital, have I ever been able to get a normal field of vision in them, though we get them primarily out of the uremic state.

MOTHER'S MILK A POTENT GERM KILLER

Scientists have known for some time that babies fed on mother's milk were protected in some mysterious fashion from various diseases such as whooping cough, measles, diphtheria and the like.

Now it appears that the mother's milk actually has the power of killing disease germs. Dr. Friedrich Schlaeppli, bacteriologist, Berne, Switzerland, has experimented with milk from nursing mothers and found that the milk has this bactericidal power to a very high degree. If the milk is kept at a mean temperature this power may be demonstrated for sixty hours or more. Such bacteria as get into it are at least very much

retarded in their development if not actually killed. The milk is even able to destroy bacteria which do not normally occur in it. Boiled milk has not this power. The boiling destroys the milk's germicidal properties.

Dr. Schlaeppli has succeeded in filtering milk, obtaining a clear greenish liquid which contained albumin but no fat. The germs naturally contained in the milk stayed back with the fat, but the power to kill bacteria remained in the clear filtrate. This was proved by adding germs to the filtrate, which destroyed them.—Science Service.

THE FUTURE OF SURGERY

In a survey of the future of surgery, Lewis Hugh McKinnie, Colorado Springs, Colo., asserts that men imperfectly qualified, even assuming a liberal standard, are doing surgery in every community. Students, under present conditions, cannot be adequately trained for the diverse activities that they will inevitably assume after graduation. The public is not safeguarded by the present diploma from a medical school, however well accredited it may be, since it seems to imply special qualifications as a surgeon or specialist,

which it cannot guarantee. The financial burdens devolving on the surgeon-to-be are so heavy that they seriously impede adequate training. He says the growing strength of the university and its ascendancy in medical education suggests: (1) the graduate school of medicine as the coming standard; (2) the separation of the special fields of medicine prior to the granting of degrees, and (3) university of postgraduate study leading to a special degree.—Journal A. M. A.

THE LATENT JAUNDICE OF LOBAR PNEUMONIA

NORMAN W. ELTON, M. D.*

The following charts show the results of icterus studies in thirty cases of lobar pneumonia admitted on the Medical Service of the Highland Park General hospital from August 1, 1928 to March 1, 1929. In addition to these, six cases of empyema and twelve of broncho-pneumonia were studied, making a series of forty-eight cases of pneumonia. The empyemas and broncho-pneumonias are not charted because no disturbance in blood bilirubin from normal was encountered. Chart A presents the results of daily icterus index studies in seventeen crisis cases. Chart B shows the daily icterus index variation in thirteen fatal cases. Chart C gives the results of daily quantitative serum bilirubin determina-

tions and Van den Bergh reactions in thirteen cases. A preliminary report at the start of this study was published in this journal in December, 1928.

DISCUSSION

Heretofore only cases showing frank clinical jaundice in lobar pneumonia have

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LEGEND LL = Left lower lobe RL = Right lower lobe BL = Bilateral lower lobes

LS = Left upper lobe RS = Right upper lobe

I = Intercostal

D = Day of crisis

SERIES NO.	1	2	3	4	5	6	7	8	CHARACTERISTIC WBC	NOTE
1				7	11	14	18		14 500	LL
3					14	9	14	D	13 900	BL
6		9	10	10					2100	ERS
9							9		31 000	LL PO
12						10	17	D		LL
17				5	4	D			22 900	RU I
18					6	6	6	D		BL I
19		8	D						2200	BL PI
20			10	D					10 800	BL PI
21					10	D				BL I
25				8	13	15			2800	RL
26	3	D							6100	RU
27		5	5	5	7	6	7	D	3500	RU

LEGEND D = Day of death PO = Post-operative OTHERS AS ON CRISIS CHART

SERIES NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
13				1.03 B	1.0 BC	.6 B								
14				1.45 B	.75 B	.74 B				.81 NC				
16							1.3 B	.7 BC						37 N
22									C	1.25 P				.31 b
28			1.9 N		1.1 NC					.46 N				
29				1.7 N	1.4 N	2.2 B	1.3 B	1.6 B	2.5 BC	1.4 B	1.25 B			
30				.4 N	.45 NC	.34 N								
12						.47	1.7 B	1.5 BD						
17				.51 b		D								
20			1.1 P	D										
21				1.13 B		D								
25				.54 N	1.2 B	2.3 BD								
27				.8 b			1.1 B	1.04 BD						

LEGEND C = CRISIS D = DEATH N = VAN DEN BERGH DIRECT REACTION NEGATIVE BIPHASIC PROMPT b = weak

been reported in the literature. These findings convincingly demonstrate that latent jaundice and a mild toxic hepatitis occur far more consistently in lobar pneumonia than in any other disease not involving the liver directly.

This research was undertaken because of the known bile-solubility of the pneumococcus, and to test the theory that lysis of pneumococci in lobar pneumonia is accomplished by bile, or some undetermined constituent of bile, which is present in the blood stream in sufficient concentration in a given case of the disease to bring about this phenomenon. Here we do find, in a disease caused by a bile-soluble organism,

*Norman W. Elton, M. D. Medical School, Boston University, 1926, M. D.; Harvard, 1920, A. B.; Interne, Surgical Service, Henry Ford Hospital, 1927-28; Resident (Surgery), Highland Park General Hospital.

a latent icterus not encountered so consistently in other fevers. It is strong presumptive evidence in favor of the theory.

In two cases where sputum was obtainable at the time of the crisis, the action of crisis serum from the corresponding patient upon the pneumococci in the sputum was tested. It was found in both these cases that the serum not only dissolved the pneumococci in a few hours, but also partially dissolved the fibrin and mucus. This makes an excellent test-tube demonstration of the process going on in the lung during the hours of the crisis. This technique will not be fully reported until observed in more cases and adequately controlled.

Lobar pneumonia this year, perhaps due to the prevalence of influenza, has been a most interesting study. A large percentage of the cases are very atypical. This has added a great burden to the correct interpretation of the icterus index disturbance.

SUMMARY

In a series of thirty consecutive cases of lobar pneumonia terminating in crisis or death, a blood bilirubin disturbance was found in 80%. This percentage becomes 95 if cases occurring during the prevalence of influenza are excluded. In seventeen crisis cases the maximum icterus index occurred on the day of crisis in eight or 48%; on a day preceding the crisis in four or 24%; after the crisis in two or 12%. No disturbance occurred in two influenzal cases. In 48% of these cases a persistent elevation of the index was found for several days following the crisis. In a series of thirteen fatal cases a maximum index at the threshold of clinical jaundice was found on the day of death in ten.

Quantitative bilirubin determinations confirm the icterus index variations.

The biphasic prompt Van den Bergh reaction was commonly observed, even in cases with only slight elevation of the icterus index.

Pregnancy was present in three cases. All aborted and two died. In these a latent jaundice was observed and in two the Van den Bergh direct reaction was prompt, indicating a more severe liver involvement than occurred in the non-pregnant cases.

Empyema cases, though one showed an elevation of the index during the first few days, invariably gave normal readings after the establishment of the pleural exudate.

Broncho-pneumonia in twelve cases showed no disturbance of blood bilirubin, with one exception, which was doubtful, and may have been lobar.

In two cases when sputum was obtainable at the time of crisis, crisis serum from the corresponding patient was found to be a solvent for the pneumococci and fibrin contained in it.

CONCLUSIONS

1. A latent jaundice and toxic hepatitis occur in primary lobar pneumonia far more commonly than heretofore reported.
2. This jaundice bears no relationship to the anatomical location of the lobe involved.
3. During an influenza epidemic many cases do not show a latent jaundice.
4. The elevation of the icterus index is of definite diagnostic value in differentiating primary lobar pneumonia from secondary lobar and broncho-pneumonia. It is also of some prognostic value.

Note: The review of the literature on bile-solubility and the occurrence of jaundice in lobar pneumonia is very interesting, but space allotment does not permit its publication in this paper.

RADIUM COMMITTEE PLANS METHODS OF INVESTIGATION

The committee recently appointed by Surgeon-General H. S. Cumming of the U. S. Public Health Service to study the problem of radium poisoning occurring in New Jersey factories has just met here to consider plans for beginning the study. All details of method and procedure were discussed and decided upon. According to present plans the study will be finished about July 1.

Radium poisoning occurred among employes of luminous watch dial factories in New Jersey, causing illness and death in some cases. While the poisoning cases occurred among the girls en-

gaged in painting the dials, all employes were found to be exposed to radium in varying degree. The present study is to determine among other things just how much radium is absorbed by the bodies of the workers, how this will affect their health and what safeguards may be taken. About 200 persons are engaged in the industry. Detailed physical examinations of these individuals will be made. The committee consists of public health and other physicians, including members of medical school faculties.—Science Service.

MICHIGAN'S DEPARTMENT OF HEALTH

GUY L. KIEFER, M. D., Commissioner
LANSING, MICHIGAN

THE PURPOSE OF THE BUREAU OF
INDUSTRIAL HYGIENE

A Bureau of Industrial Hygiene has recently been created in the Michigan Department of Health, a division of public health service looking to the interest of industrial and mercantile establishments in their efforts to safeguard the health of their employees.

The general purpose of this bureau is to keep in practical touch with the health problems affecting industrial workers; to become familiar with the changes constantly taking place in the rapidly growing and highly specialized field of industrial hygiene, to be able, thereby, to give counsel and aid, as occasion may demand. To this end the main functions of the bureau will be:

1. To study the general progress of health service in industries in relation to the various influences that affect the physical and mental well-being of men and women in their employ.
2. To note the types and extent of health service best adapted to Michigan industries, dependent upon their size and the nature of work conducted.
3. To aid in devising and establishing generally accepted standards for practical application of hygiene in industries.
4. To secure data on important items such as occupational diseases and industrial hazards.
5. To establish consulting and advisory relations with health departments of industries; to serve as an exchange medium for procedures proved to be most effective in health promotion and care.
6. To supervise the collection, preparation, and distribution of pamphlets, bulletins, and other material for education in industrial hygiene.
7. To aid in establishing co-operative relations between health departments of industries and local health departments, medical societies, and district nursing, welfare and educational units.

The first step toward the establishing of this bureau was to conduct a survey of industrial and mercantile establishments to learn the nature and extent of health service now being promoted by them; to discuss with plant executives some of the main objectives of their health work; to get their reactions and recommendations as to the value of certain measures, also

their anticipated improvements, and to offer an assistance possible from the Michigan Department of Health.

The survey has thus far covered about 100 establishments with employees numbering from 150 to 30,000. No particular preference was shown as to industries visited, the aim being to visit those in which could be observed both the very limited and the most inclusive scope of measures employed in the care of injured and ill employees.

The items noted in the survey are: Staff of physicians and nurses, equipment, physical examinations, dispensary or health department service, relations with "family" physicians, safety measures, welfare programs, benefits derived from the health service in general, and recommended variations and improvements.

The data gathered in this general survey is enlightening as to the rapid growth and possibilities of industrial health work. It is also reassuring as to the valuable contribution well organized health work in industries can make to the field of public health. A resume of some of the significant points brought out by the survey will be included in these columns next month.—F. A. P.

THE HIGHWAY WATER PROTECTION PROGRAM

Supervision of roadside drinking water supplies has been an important part of the summer program of the Bureau of Engineering for the past four years. With the increasing attention paid to resort promotion in Michigan, as well as in other states, has come added interest in this phase of summer health protection.

Work on the roadside water survey was conducted during 1928 in the same general manner as in previous years. One more man was used than in 1927 and consequently the work was completed in shorter time. In 1927 the total time covered by the collection work was 83 days from June 1 to August 22. In 1928 only 53 days were required from May 21 to July 14. In 1927 the work covered 84 working days, and in 1928, 68 working days. This improvement is advantageous because it enables the work to be finished and the signs posted in time to be of more service to the traveling public during the resort season. Posting was begun on June

11 and completed on July 24, about a week earlier than the previous year.

In spite of the fact that less time was used, more samples were collected. In 1927, a total of 1,196 sources were tested and in 1928, this number rose to 1,380. The length of trunk line roads covered was probably about the same as in the previous year.

FIELD PROCEDURE

Previous to 1928 the samples collected during each day were mailed to the Lansing laboratory at some time in the latter part of the afternoon, depending upon the parcel post mail. In some places the last mail of the day left rather early and when packages were mailed at such times and places it necessitated stopping work early in the afternoon. In 1928 the system was changed and the collector was introduced to mail shipments at convenient places about noon or early afternoon. Samples collected after the shipment was mailed were protected from excessive heat until they were shipped the next day. No unfavorable results appeared from this method of procedure and considerable of the collector's time was saved.

SIGNS

An effort was made in 1928 to have the signs indicating the safety of municipal supplies erected by the highway department. Unfortunately this was not satisfactory because of the delay in erecting the signs and in reporting to us what had been done. The amount of time saved by the posting of the municipal signs by the highway department is negligible because their erection by our man when he is on the road posting individual signs does not delay him sufficiently to enable him to finish his work any sooner.

CAUTION SIGNS

In 1925, 84 caution signs were erected. These were placed by the highway department near the limits of the municipalities. The locations of these signs created the wrong impression in the minds of many people. It was assumed that they were a warning against the use of the water supply in that particular town, which was entirely different from the publicity contemplated and desired. These caution signs were removed in 1928.

During the past season caution signs were erected at 93 points along the main traveled highways and were quite evenly distributed over the southern peninsula. Some of the posts were equipped with two signs, one to be read from each direction,

and some of them had only one sign. In general, the single signs were placed near the borders of the state and so faced that they would be conspicuous to those driving into the state. All caution signs were placed in the open country well removed from advertising signs. Black letters on an orange background enable these signs to be read quite easily even from a rapidly moving automobile. Judging from comments, the educational value of these signs is high. They teach the people to look for smaller individual signs indicating a safe drinking water source.

A total of 157 signs was erected at the 93 points mentioned. It is hoped that more caution signs can be erected during the coming summer. Quite a number should be placed in the Upper Peninsula and the remainder of these in stock could be advantageously distributed throughout the Lower Peninsula.

The problem now is to cover the state completely enough with individual signs that no great difficulty will arise in finding a safe drinking water. Some of the county roads, particularly those heading to popular and populous resorts, should be covered in 1929.

UNSAFE SOURCES

Thus far it has been our policy not to post unsafe sources. There are a few municipalities, particularly small ones, where it has been difficult to arouse enough civic pride to insure the appropriation of sufficient money to make the public water supply safe. It might be wise to place conspicuous signs on the main traveled roads entering these places warning the public that the public water supply is considered unsafe for drinking purposes. Perhaps such advertising unfavorable to the municipalities would assist in awakening the public officials to the danger and to a sense of their duty and secure the needed correction.

GENERAL RESULTS

Total time covered by the work May 21 to July 12.....	50 days
Total samples collected.....	1,407
Total sources of samples analyzed.....	1,380
Total samples analyzed.....	1,389
Average number of samples per collecting days.....	21.7
Miles of trunk line covered.....	6,435
Average miles trunk line covered per collecting day.....	94.6
Average distance between samples in 1927 was.....	6 miles.
Average distance between samples in 1928 was.....	4.66 miles.

Records of the State Highway Department show that there is a total of 7,544 miles of designated trunk lines in the state. Included in this mileage are 413 miles of earth roads, 60 miles of impassible, 78 miles which have been graded and drained, and 10 miles which have been cleared only and not yet open, leaving a

total of 6,983 miles of roads paved or surfaced with gravel.

COMPARISON OF RESULTS FOR FOUR YEARS

Year	Miles Covered	Sources Tested	Number Safe	Per Cent Safe	Number Unsafe	Per Cent Unsafe
1925	1,787	427	272	63.7	155	36.3
1926	5,479	805	619	76.3	186	23.7
1927	7,190 (?)	1,196	1,000	83.6	196	16.4
1928	6,435	1,380	1,159	84.0	221	16.0

The progressive increase of safe results cannot of course continue indefinitely for the limit has about been reached, and the percentage of safety will probably be reasonably constant in the future. This increase is the best evidence of the value of the work that has been done. There is no doubt that it arises from the fact that unsafe supplies have been improved or their use abandoned.

WELLS, INFLUENCE OF DEPTH

The following table shows the comparison between depth of well and safety for 1925 and 1928. In preparing this table, previous to 1928 all types of wells were included. Dug wells are rarely more than 50 feet deep. They are always less safe than tubular wells. For this reason the inclusion of dug wells in the table of depths affects the record for the shallower wells adversely. Since it is the desire to show by this table the influence of depth only, it seems unfair to include shallow dug wells, and so the figures for 1928 have been prepared by eliminating all dug wells from this table. The increase in percentage of safety as shown in the table for wells 25 feet deep or less is therefore due more to the elimination of dug wells than to the improvement of shallow wells.

25 feet or less				1928			
1925							
Safe	36	—	27.5%	158	—	85.9%	
Unsafe	60	—	62.5	26	—	14.1	
Total	96	—	100. %	184	—	100. %	
25 to 50 feet							
Safe	66	—	67.5%	221	—	87.0%	
Unsafe	32	—	32.5	33	—	13.0	
Total	98	—	100. %	254	—	100. %	
50 to 75 feet							
Safe	27	—	77. %	89	—	88.1%	
Unsafe	8	—	23. %	12	—	11.9	
Total	35	—	100. %	101	—	100. %	
75 to 100 feet							
Safe	29	—	78.5%	79	—	88.8%	
Unsafe	8	—	21.5	10	—	11.2	
Total	37	—	100. %	89	—	100. %	
Over 100 feet							
Safe	49	—	92.5%	153	—	89.5%	
Unsafe	4	—	7.5	18	—	10.5	
Total	53	—	100. %	171	—	100. %	

WELLS, INFLUENCE OF TYPE

The following table shows the relation

of type of well to safety for 1925 and 1928:

1925				1928			
Tubular							
Safe	251	—	71.0%	951	—	89.2%	
Unsafe	103	—	29.0	115	—	10.8	
Total	354	—	100. %	1,066	—	100. %	
Dug							
Safe	2	—	7.7%	46	—	36.5%	
Unsafe	24	—	92.3	80	—	63.5	
Total	26	—	100. %	126	—	100. %	
Springs							
Safe	11	—	41.0%	16	—	64.0%	
Unsafe	16	—	59.	9	—	36.	
Total	27	—	100. %	25	—	100. %	

The 1928 results for dug wells have been separated into two classes as follows:

Dug wells, 25 feet deep or less			
Safe	42	—	39.3%
Unsafe	65	—	60.7
Total	107	—	100. %
Dug wells, 25 to 50 feet deep			
Safe	4	—	21.1%
Unsafe	15	—	78.9
Total	19	—	100. %

These classifications show that shallow dug wells have a low percentage of safety as mentioned above.

MUNICIPAL SUPPLIES

Samples were tested from 161 municipal supplies along the roads traveled. Of these 140, or 87 per cent were found safe. In addition to those found safe upon analyses, 65 others were known to be safe from information already in the office.

TOURIST CAMPS

Forty-one tourist camps were inspected on the survey. The ratings of the camps based on a composite consideration of camp facilities show 66 per cent good, 19.5 per cent fair, 9.7 per cent bad, and 4.8 per cent not rated.—E. D. R.

A SAVING IN POSTAGE

A net saving to the medical profession of about \$5,000 a year in postage, and elimination of a postage due expense of approximately \$800 a year to the laboratory, has been made possible through a new arrangement with the United States postal authorities. Laboratory blanks have been altered sufficiently to come within the postal regulations for third and fourth class matter and yet give sufficient information so that the bacteriologists can work intelligently.

We always appreciate additional information on specimens in letters from physicians. They add zest to our work.—C. C. Y.

CHILD HYGIENE NOTES

Women's classes in Eaton and Shiawassee counties conducted by Dr. Ida Alexander during March and April have been

completed. The attendance was 2,000. Classes were held in Pottersville, Diamondale, Olivet, Bellevue, Eaton Rapids, Vermonthville, Charlotte, Mulliken, Grand Ledge, Henderson, Owosso, Byron, Bancroft, Corunna, Lennon, New Lothrop, Vernon, Laingsburg and Perry.

Child Care classes are now being conducted by members of the staff of the Bureau of Child Hygiene and Public Health Nursing in the following counties: Delta, Menominee, Newaygo, Branch, Calhoun and Genesee, with an attendance of 8,991 for the months of March and April, 1929.

VISITS OF ENGINEERS DURING MONTH OF APRIL, 1929

Inspections of railroad water supplies: total 23.

Adrian	Monroe
Ann Arbor	Mt. Pleasant
Baldwin	Pentwater
Detroit (5)	Port Huron (3)
Flint (3)	Saginaw
Ludington	Ypsilanti (2)
Manistee (2)	

Inspections and conferences, water supplies: total 35.

Battle Creek Sub-Div.	Marlette (2)
Berkley	Milan
Birmingham (2)	Milford
Blissfield	Monroe
Carleton	Mt. Morris (3)
Caro (2)	Northville (2)
Centerline (2)	Ontonagon
Clawson	Owosso
Duck Lake	Plymouth (2)
Flat Rock	Warren
Fraser	Wayne
Hillsdale	Vassar (3)
Lansing	

Inspections and conferences, sewerage and sewage disposal: total 9.

Carleton	Roseville
Grand Rapids	Sturgis
Hart	Traverse City
Mt. Morris	Whitehall
Pentwater	

Inspections and conferences, swimming pools: total 3.

Monroe	Wyandotte (2)
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Inspections and conferences, miscellaneous: total 13.

Brighton—Sewage nuisance.
Camden—Sewage disposal for school.
Charlotte—Spring supply.
Lansing—Drop Forge—Oil nuisance.
Lansing—Plumbing Law (2)
Lansing—Smith Chemical closets.
Lansing—Camp sanitation.
Long Lake—Sewage in drain.
Mason—Fresh Air Camp—Water and sewers.
Orchard Lake—Drainage.
Orchard Lake—Seminary—Sewage Disposal.
Pine Lake—Inspection—Scarlet Fever.

Grayling, water, sewerage and sewage disposal.

Full time of one assistant on this work since April 15th.

PREVALENCE OF DISEASE

April Report

Cases Reported

	March 1929	April 1929	April 1928	Av. 5 Years
Pneumonia	846	772	1,068	859
Tuberculosis	414	500	517	630
Typhoid Fever	22	26	23	32
Diphtheria	411	341	232	345
Whooping Cough	1,049	1,261	581	582
Scarlet Fever	2,034	2,144	1,080	1,316
Measles	2,336	3,750	6,212	3,617
Smallpox	264	264	132	212
Meningitis	209	316	22	14
Poliomyelitis	4	4	1	2
Syphilis	1,146	1,718	1,121	1,302
Gonorrhea	442	979	558	753
Chancroid	9	23	6	11

CONDENSED MONTHLY REPORT

Michigan Department of Health Laboratories

Lansing Laboratory—

	+	—	+—	Total
Throat Swabs for Diphtheria				1064
Diagnosis	39	480		
Release	52	133		
Carrier	12	336		
Virulence Tests	6	6		
Throat Swabs for Hemolytic Streptococci				629
Diagnosis	117	164		
Carrier	35	313		
Throat Swabs for Vincent's	59	460		519
Syphilis				9555
Kahn	1493	7942	113	
Wassermann	1	5		
Darkfield		1		
Examinations for Gonococci	165	1456		1621
B. Tuberculosis				585
Sputum	61	509		
Animal Inoculations		15		
Typhoid				190
Feces	3	64		
Blood Cultures	1	50		
Widals	11	56		
Urine		5		
B. Abortus	3	56		59
Dysentery		48		48
Intestinal Parasites				32
Transudates and Exudates				653
Blood Examinations (not classified)				194
Urine Examinations (not classified)				259
Water and Sewage Examinations				585
Milk Examinations				111
Autogenous Vaccines				2
Supplementary Examinations				356
Unclassified Examinations				816
Total for the Month				17278
Cumulative Total (fiscal yr.)				151490
Increase over this month last year				3329

Houghton Laboratory—

Examinations made — total for the month	1934
Cumulative total (fiscal yr.)	15512
Decrease over this month last year	315

Grand Rapids Laboratory—

Examinations made — Total for the month	5827
Cumulative total (fiscal yr.)	66348
Increase over this month last year	181
Typhoid Vaccine Distributed, c. c.	1843
Diphtheria Antitoxin Distributed, units	203635000
Diphtheria Toxin Antitoxin Distributed, c. c.	45950
Silver Nitrate Ampules Distributed	10140
Scarlet Fever Antitoxin Distributed, pkg.	141
Scarlet Fever Toxin Dick Test Distributed, c. c.	1120
Scarlet Fever Toxin Immunization Distributed, c. c.	1644
Smallpox Vaccine Distributed, points	14300
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THE JOURNAL

OF THE

Michigan State Medical Society

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JUNE, 1929

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon.

EDITORIAL

THE LEGISLATIVE SESSION

It has become almost a truism that the inhabitants of a state, especially the tax payers, are seized with more or less nervousness when their legislatures are in session. Legislatures are proverbial spenders and taxation appears to be a problem that can never be solved to the satisfaction of anyone. The medical profession has had occasion during the past session of the State Legislature to feel particularly uneasy. During the past 50 years, which is a little less than the life of each of the two existing medical colleges of this state, there has been a remarkable advance in scientific medicine. The credit for this is due partly to the fact that we are living in a scientific age and that the science and art of medicine have kept pace with the general development of scientific knowl-

edge. Credit must be given also to a movement in Michigan at the beginning of this century to eliminate from the practice of medicine healers who were ignorant and unqualified. This movement began among qualified physicians. Standards have been so advanced from time to time that they now equal those of the most enlightened states of English speaking countries.

Medicine started out as a more or less individual affair sponsored by proprietary schools and sometimes by individual cults. Michigan has the honor of being a pioneer in the matter of state education in medicine. The cults have struggled, strutted and fretted their hour upon the stage only to pass out or to assume a minor position. Even 30 years ago it was considered that they should be represented on the Michigan Board of Medical Registration so that we had to be represented by the allopathic, homeopathic and eclectic schools. These cults as such no longer exist. Any desirable features they may have possessed have been incorporated into what has long since become the regular medical profession.

* * *

In an endeavor to bring the old Medical Practice Act up to date, to make it conform with the profession of medicine as it obtains at the present time, a movement was started in the House of Delegates of the Michigan State Medical Society to obtain enabling legislation. This has had the effect of precipitating certain other movements in the legislature which have tended to obscure the whole medical situation. At once the osteopath, chiropractor and christian scientist have become so solicitous in regard to what they feared an infringement on their rights, that they have sought independent boards, which if granted would constitute a retrograde movement and throw us back at least a quarter of a century in the matter of uniformity of medical standards. The governor has vetoed the chiropractic bill; so far so good. The osteopathic measure has been passed by the Senate and House.

* * *

It is apparent to everyone conversant with the situation that there exists a misunderstanding in the minds of many legislators in regard to the whole matter of the healing art. Someone probably has felt himself unfairly dealt with by some member of the medical profession, henceforth he has a grudge against the whole profession. This shows a poor faculty for generalization. It is as if a person who fell

downstairs should move for the abolition of this mode of seeking a higher or a lower level. The members of the medical profession are human; they do not claim to be any better nor any worse as individuals than the members of any other profession or social group. They have sought to improve their profession as such and to advance medical knowledge by encouraging and where possible participating in medical research. They have hitherto given freely of their time to indigent sufferers as well as in aiding in the great field of preventive medicine. They do not ask anything for themselves; but they are extremely solicitous of the future of the art and science of medicine; anxious, because they are in a position to realize the medical situation as no one else can be expected to realize it.

The admission of the healing cults to rights and privileges (and also may we add responsibilities) of medical practice is tantamount to admitting a layman who has a smattering of business law to the right to practice every branch of law, or a person who has acted as an architect's building inspector to practice architecture on the same terms as a master, or the person with not even a smattering of the science of engineering to engage in the erection of some gigantic structure.

If the attitude of a considerable portion of the legislature can be said to reflect the opinion of the state regarding scientific medicine, there is a big field for health education as it has been carried on by the Joint Committee on Health Education. However, with the ample facilities for medical training which the people of Michigan have provided at the state university it is difficult to realize that they would endorse the legislative acts of some of their representatives.

THE MORON AND THE MOTOR CAR

An investigation has been made into the mentality of those charged with traffic violations in Detroit. One hundred cases were selected at random by a judge of the recorder's court. The examination was made by Dr. Theophile Raphael, the court psychiatrist. Forty-two cases of the hundred violators were found defective in some respect; seven showed significant defects in hearing and fourteen in vision, of whom four were color-blind. Forty-six violations were by persons in a state of intoxication. One was definitely insane and twelve were classified as feeble-minded. This is rather a sad reflection on the tribunal who

granted licenses to these subnormal drivers.

Of the hundred, 63 carried no liability insurance. Of course we would be surprised if the kind of driver mentioned did carry insurance. The individuals usually have no regard for others; they have nothing and their helpless victims, in the event of accident, have no redress. Of law making there is no end. However, it should be made a statutory offense for anyone to drive an automobile unless he were financially able to take care of any damage he might cause, or were compelled to carry a personal liability insurance in some good company who could perform this service for him. One's inability to obtain such insurance should eliminate him from the streets and highways as an automobile driver.

The revelation of this investigation points to a serious condition, one which, unless something drastic is done soon, will increase in gravity and become a positive menace to road safety.

A COMMON NEWSPAPER "CAUSE OF DEATH"

It is becoming a little monotonous to regular readers of the daily press to learn that "Mr. Gotrox, the well known financier of New York city, died at Blank hospital from the effects of a surgical operation performed to relieve an intestinal condition." The gentleman in question undoubtedly had a carcinoma of the colon for which a colostomy was performed or an enterostomy was done to relieve an intestinal obstruction. If the patient refused an operation to relieve his obstruction and succumbed, would the newspapers say "Mr. Gotrox died from the effects of his refusal to have an operation performed for the relief of intestinal obstruction?"

If on the other hand a prominent citizen died from pneumonia and was given oxygen in an endeavor to save him from asphyxiation, would our friends of the daily press say "Mr. Gotrox died from the effects of the administration of oxygen administered in the treatment of his pneumonia?" Suppose that Mr. Gotrox died from pernicious anemia, why should not the daily "Blow-hard" announce to the public that "Mr. Gotrox died from the effects of some transfusions of blood administered in the treatment of his pernicious anemia?"

A surgical operation for the relief of a life-endangering disease is a therapeutic measure! It is a treatment administered

according to the best judgment of the surgeon in an endeavor to save the patient's life. How long before the editors will realize that it is the disease that carries off the patient, and not the remedial agent used to cure the disease? Surgery is only one of the many agencies used by the medical profession in its increasing war on infection and disease. It is just as logical to state that the patient died from a dose of medicine as to state that he died from an operation. It is true that patients occasionally succumb to anesthesia, shock or hemorrhage, but very rarely.

It is disease that wears down the resistance in an individual so that he is unable to overcome mankind's enemy and it is this which unfortunately prevents the success of some operative endeavor for relief. Let the newspapers then state frankly in their death announcements in the news columns that "Mr. Gotrox died at Blank hospital after a long illness from intestinal disease."

The mention of a surgical operation, a hypodermic injection or any other form of treatment incident or pertinent to the case is superfluous and misleading. Many less enlightened or timid people who would be benefited by a timely operation are terrorized and prevented from receiving the benefit of this life-saving procedure by this cruel and unwarranted intimation that death was due to the treatment and not to the disease.—L. J. H.

A NOTE OF SYMPATHY

As this Journal goes to press the newspapers contain accounts of the catastrophe which befell the Cleveland Clinic. The whole population is naturally shocked, but the medical profession to whom the Chief of the Clinic and his associates are known with a more or less degree of intimacy, are extremely pained on hearing the news of the disaster. The sympathy of the medical profession of this state is extended to Dr. Crile and his associates. It is scarcely necessary to call to the minds of the medical profession the large place this Clinic has occupied in American medicine.

Our Secretary sent the following message to Dr. Crile:

Grand Rapids, Michigan,
May 16, 1929.

George W. Crile, M. D.,
Cleveland Clinic,
Euclid Ave. and E. 93rd St.,
Cleveland, Ohio.

Permit me on behalf of the Michigan

State Medical Society to extend to you and your associates during this trying occasion our heartfelt sympathy. Be assured that we share with you the mental tribulation and bid you to unflinchingly continue to carry on with increased zeal for our profession's honor which you have so commendably maintained in the past.

F. C. Warnshuis, Secretary.

REPLY

Cleveland, Ohio, May 16, 1929.

F. C. Warnshuis, Secretary.

Many thanks for your message of sympathy referring to Dr. Crile.

Mary A. Slattery, Secretary.

SAYINGS OF A SEPTUAGENARIAN

DR. C. B. BURR,

FLINT, MICHIGAN

Pretense of unworthiness or self-disparagement rarely deceives.

* * *

True erudition is unaccompanied by the blare of trumpets.

* * *

Boastfulness is oftener than otherwise an indication of the "inferiority complex."

* * *

The exercise of tolerance is most difficult for the septuagenarian. "Right" and "wrong" are elusive and misleading words.

Intolerance and personal prejudice when identical as is frequently the case should be concealed.

* * *

A philosopher holds no brief for "righteous indignation" which smacks too much of prejudice and self-complacency.

* * *

A sense of humor is an invaluable asset to an individual or those in attendance upon him.

* * *

To laugh in the right place is an accomplishment.

* * *

To the same extent as appreciation of the humorous is desirable reaction to the silly and coarse as, for instance, the frequent expression "damn" on the stage is pitiful as indicating embryonic emotions. Why do playwrights perpetuate this absurdity?

* * *

Serious scrutiny and searching analysis are not invariably expedient. Enjoyment is impaired through incredulity over the unimportant.

BIZZARRE REMEDIES

A man posing as a physician was arrested in England recently. On being examined he described "ad valorem" as a drug. The Manchester Guardian thinks it might not be without some benefit in that respect. "One tablespoonful of

ad valorem taken every four hours might have worked wonders with many a simple patient, and there is no knowing what an infusion of vice versa in medias res might have done for some people. Equal parts of verb. sap., compos mentis and sine die, well beaten up with esprit de corps, suggests another safe household remedy."—Word Study.

DE NOBIS

"May I remind you of some of your privileges? You and kings are the only people whose explanation the police will accept, if you exceed the legal limit in your car. On presentation of your visiting-card you can pass through the most turbulent crowd unmolested and even with applause. If you fly a yellow flag over a center of population you can turn it into a desert. If you choose to fly a Red Cross flag over a desert, you can turn it into a center of population towards which, as I have seen, men will crawl on hands and knees. You can forbid any ship to enter any port in the world. If you think it necessary to the success of any operation in which you are interested, you can stop a 20,000-ton liner with mails in mid-ocean till the operation is concluded. You can tie up the traffic of a port without notice given. You can order whole quarters of a city to be pulled down or burnt up; and you can trust to the armed co-operation of the nearest troops to see that your prescriptions are properly carried out."—Rudyard Kipling in Canadian Medical Association Journal.

SIR CHARLES SHERRINGTON ON HARVEY

"The work of Harvey, the spirit of it no less than the import of it, provides his eulogy and makes superfluous all other. His great discovery, aside from its intellectual worth, secured an item of knowledge than which no other single item has so served to grow, as from a seed, medicine as we now know it. And it was the reassertion, the rebirth, of the method of experiment which, wedded to observation, had created the medicine—and the surgery—of the civilized world today. To engender medicine anew is to engender a whole world of correlated knowledge; and an attendant world of beneficence no less. The circulation of the blood, the meaning of the heart, the light of a victorious method! May we not affirm that modern medicine does in fact start there? Harvey, founder of modern medicine! He would himself have felt no term can carry richer or lovelier praise from a grateful world."—British Medical Journal.

SINAPISMS

("There is no present reason to know that artificial light can do more . . . than a mustard plaster, which is infinitely cheaper."—Medical Research Council.)

I remember, I remember
The plasters that I've borne—
Those largish squares of mustard
That would sting a hide of horn;
My parent clapped them on all wet,
O! very cold were they—
But what a most outrageous heat
They'd presently display.

I remember, I remember
'Twas all done for the best—
And what a square of red they left
Upon my infant chest!

But, after all, I'm bound to say
That when they peeled them off
They "loosened" or they took away
That infant's "narsty" cough.

I remember, I remember
How doctors changed their face,
And sinapisms bit by bit
Fell from professional grace;
And vitamins and suchlike things
Became the later craze—
Yea, vitamins and calories
And ultra-violet rays!

I remember, I remember
The plaster and its pain—
But smile to think the wheel has swung
Full circle once again;
Back crowd the memories of my youth
And much malicious joy
To think I'm farther off from truth
Than when I was a boy.

—Manchester Guardian.

NEWS AND ANNOUNCEMENTS

Thereby Forming Historical Records

Dr. A. J. Carlson, Professor of Physiology of the University of Chicago, addressed the Genesee County Medical Society, Flint, Mich., May 1st. Subject was "Physiology of Digestion."

Dr. Thomas Brennan, head of the Psychopathic Hospital, University of Iowa, has been appointed Assistant Superintendent of the Wayne County Training School.

The extract which appears on the cover of this Journal is from a new work entitled "The Mighty Medicine," by Giddings, published by the Macmillan Company of New York. The extract is made by special permission of the publishers to whom our grateful acknowledgements are due.

Dr. John Alexander, assistant professor of surgery of the University of Michigan medical school, has been awarded the Henry Russell award for 1928-29, given annually to a younger member of the university faculty who has shown unusual ability in his particular field. The award namely \$250 has been made in recognition of Dr. Alexander's achievements in thoracic surgery.

The recent election in connection with the Wayne County Medical Society resulted as follows: President, Dr. A. S. Brunk. Dr. Brunk is also President of the East Side Physicians Association of Detroit; Vice President, Dr. C. B. Lakoff; Secretary, Dr. S. W. Insley; Trustee, Dr. Frank A. Kelly.

Dr. Frank A. Kelly of Detroit has been invited to open the discussion on the subject of "The Pitkin's Method of Controllable Spinal Anesthesia," which will be presented at the British Medical Association at its Annual Meeting which will be held in Manchester, England, July 22nd to 26th. Dr. Kelly has also been invited to contribute a paper on Spinocain to the British Medical Journal for July 1st. The following Michigan

doctors will attend the meeting of the British Medical Association along with Dr. Kelly. Doctors W. A. Hudson, Nelson McLaughlin, H. W. Plaggmeyer of Detroit, and T. G. Yeomans of St. Joseph, Mich.

CORRECTION

The fourth paragraph of Dr. Alexander Campbell's discussion of Dr. H. W. Hewitt's paper, Radium and Its Usefulness in the Treatment of Malignant Diseases, etc., page 375 of the May number of the Journal should read "Radium has a minimum mortality less than 2 per cent, and the five-year cures following radium show almost as high a percentage as that following surgery."

At the Annual Meeting of the Detroit Otolaryngological Society, (Ear Nose and Throat) held at the Detroit Athletic Club, April 24th, the following were elected officers for the ensuing year:

President, Dr. Carl G. McClelland, Detroit; Vice President, Dr. George E. Winter, Jackson; Secretary-Treasurer, Dr. Don Cohoe, Detroit; Member of the Wayne County Medical Society Counsel, Dr. Fred Munson, Detroit.

A campaign for the raising of \$300,000 to finance a new addition to Grace hospital, the Salvation Army, as well as the Narcotic Education Fund was held in Detroit between the dates of May 12th and 24th. The movement it goes without saying has had the endorsement of the Wayne County Medical Society. The object of the campaign so far as the Grace hospital unit is concerned has been stated to be the reduction of hospital accommodation to meet the needs of people of moderate means.

The thirtieth annual meeting of the American Proctologic Society was held in Detroit on May 13th, 14th and 15th. The address of welcome was made by Dr. Edward G. Martin, president of the American Proctological Society and also the Wayne County Medical Society. Among the members and fellows residing in the state of Michigan were, Doctors Louis J. Hirschman, Edward G. Martin, Charles A. Stimson, Eaton Rapids, N. O. Byland, Battle Creek, and John J. Corbett, Detroit. The program of the Wayne County Society for May 14th was supplied by the American Proctological Society as follows: "Fistula in Ano" by Edward W. Jew, Pittsburgh, Pa., and "Constipation" by Walter A. Bastedo, New York city. The main sessions of the Society were held at the Statler hotel where a small but instructive exhibit was presented of pathological specimens, drawings and vascular injections about the rectum and sigmoid. Clinics were conducted at the Receiving hospital, Detroit.

United States Senator James Couzens, Detroit, has created a \$10,000,000 trust fund to promote the health, welfare, happiness and development of the children of Michigan and elsewhere in the world. Dr. Hugo A. Freund has been made director of the corporation whose duty it will be to administer the fund. The trust instrument stipulates that the principal and income must be distributed entirely inside of 25 years. In a statement attributed to Dr. Freund:

"Mental hygiene and child guidance clinics will be encouraged; vocational and educational problems will receive attention; plans for properly supervised group recreation will be assisted; dietetic hygiene, nutritional and other subjects bearing on the health of children will be investigated wherever the indication for the study arises. The Senator feels that the children physically handicapped should receive early consideration from this fund. For the present no research in the pure sciences will be attempted. "Nor will any edifice be erected to serve as a center for the many activities. This fund is for the purpose of assisting and developing those agencies and institutions that are already established, or creating new projects for the welfare of children and supplementing the work already begun in well established organizations."

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DR. ANGUS McLEAN DELEGATE TO CONGRESS OF MILITARY MEDICINE

Dr. Angus McLean of Detroit has returned from London, England, where he has attended the Fifth International Congress of Military Medicine and Pharmacology at London. The meeting was held from the 6th to the 11th of May under the patronage of King George V. Dr. McLean was official delegate from the United States, having been appointed by President Hoover. Two years ago Dr. McLean was appointed by President Coolidge as a delegate to the Congress of Military Medicine when it met at Warsaw, Poland. Dr. McLean also attended the Royal Institute of Public Health in Zurich, Switzerland, from May 15th to May 20th, as delegate of the Association of Military Surgeons of the United States. The Association of Military Surgeons is composed of medical officers of the United States Army, the United States Army, the United States Public Health Service, the National Guard and the United States Veterans Bureau. He was also delegate to the First International Congress Aviation Sanitaire held in Paris. The Congress was opened by a reception by the President of France and Marshall Lauty, head of the air services of France.

While in London Dr. McLean was guest at a reception and Banquet given on May 10th by the Corporation and City of London, which event was presided over by the Lord Mayor. The banquet was held in the historic Guildhall. The invitation and menu of the function were works of art. On May 6th Dr. McLean attended a reception at St. James Palace where he was presented to the Prince of Wales by Sir Matthew Fell. While in London he was made an honorary member of the Royal Army Medical Corps Officers Mess. Dr. McLean is enthusiastic in his commendation of British hospitality.

DEATHS

DR. ARTHUR W. KIPP

Dr. Arthur K. Kipp of Detroit died on May 20th, after an illness of only two weeks. Dr. Kipp was 50 years old and had practiced medicine for 27 years having graduated from the Detroit College of Medicine in 1902. Dr. Kipp was for a number of years associated with the late Dr. E. B. Smith. He was a member of the Wayne County Medical Society and the Michigan State Medical Society. Dr. Kipp is survived by his widow, Mrs. Alma McClellan Kipp.

COMMUNICATIONS

To the Editor of The Journal M. S. M. S.:

At this time when so much is being said about human constitution, I believe the rank and file of the medical profession need help. A review of the literature leaves one in confusion. Pende is most interesting with a wide grasp and deep understanding of the subject. He is difficult to follow in a systematic, practical way. Bauer on the other hand is very comprehensive and full of minute detail, much of no moment to the physician.

It might be interesting for your readers to note that for two years a group of men in Detroit, calling themselves the Human Constitution Studies Club, have been occupied with a study of normal types and it is here where I believe the beginner should start. I might say further that in our studies we have first made a roentgenologic analysis of the individual under study. This includes the sella and an analysis of pituitary characteristics, which to my mind is basically essential.

We feel that the time is ripe for all progressive men to turn their attention to this field. We do also feel that the simpler the system of approach, the more certain the progress.

S. E. Sanderson.

APPRECIATION

Michigan State Medical Society,
Dear Dr. Warnshuis:

In the continued legislative battle which has prevailed during the present session of the legislature at Lansing, mere expression is inadequate in disclosing the appreciation which should go to the active officers of the Michigan State Medical Society and to the Legislative Committee of the Wayne County Medical Society. Such time and effort as has been given is and will be unappreciated by the majority of the members of the medical profession throughout the state as well as in our own Wayne County. The medical profession as a whole are inclined to be non-cooperative when it comes to individual effort; there is a continued feeling that the other fellow will do it. This situation necessarily makes those men who assume responsibility and give their time and effort in behalf of the public and their medical fellows stand out as true representatives, symbolizing the ideal of unselfish effort.

As President of the Wayne County Medical Society I wish particularly to express my appreciation of the activities of Doctors R. E. Loucks and Alfred H. Whittaker. These two gentlemen are truly representative of unselfish effort. I reserve for special commendation our beloved Guy L. Kiefer, who has proven himself truly a state health officer.

With the interest of Michigan's citizens at heart and supported by his loyalty to the high ideals of scientific medicine, he has served faithfully, unceasingly and courageously. Dr. Louis J. Hirschman, President of the Michigan State Medical Society and a member of the Wayne County Medical Society, could not have been excelled in his efforts. And words fail me to comment adequately upon the splendid and experienced efforts of our State Secretary, Fred Warnshuis; one must know

him to appreciate his loyalty, ingenuity and untiring activity.

There are several other members of the Wayne County Medical Society who have given to this legislative battle their best effort and to this group, as well as the members specially mentioned, the medical profession of the state and Wayne County in particular are deeply indebted.

The medical profession have an urge to maintain and raise the high ideals which have developed through the ages with scientific medicine. They are accused of selfish motives. Such accusations come from laymen who are uninformed or whose efforts and statements are motivated by selfish and personal interests. Politically we may be beaten, since we are not politicians, but professional I feel assured that our fight on behalf of the public and all that it signifies will be carried on and on without failure and with an ideal that we may approach but possibly never hope to reach. Such is life in this busy commercial world.

Very truly yours,

E. G. Martin, M. D., President,
Wayne County Medical Society.

PRESIDENT'S APPRECIATION

Michigan State Medical Society,
Dear Dr. Warnshuis:

Now that the legislative session is over, and the smoke cleared away from the battle field, and the casualties on both sides accounted for, I believe our membership should know something about the wonderful work done in behalf of the physicians of Michigan as well as the health of the public by our State Commissioner of Health.

Those who have known Dr. Kiefer during his many years of service in our profession have admired him for his initiative, his tact, and his aggressiveness. Added to this, his keen grasp of situations as they arose and his pugnacious struggle to prevent cults and irregular practitioners from breaking down the wall of health which he has assisted in building in Michigan, has won added admiration from those of us who worked and fought along side of him in this struggle.

I want the membership of the Michigan State Medical Society to know that our medical legislation met the most vicious opposition in this year's legislation that was ever encountered by any medical legislation. That we have succeeded in preventing the dangerous and vicious special privilege legislation for the benefit of the chiropractors and osteopaths is due principally and primarily to Dr. Guy L. Kiefer's patient and persistent efforts. This is quite in line with Dr. Kiefer's policy in his administration of the State Health Department. He has been using every effort there to bring the practice of medicine back to the family physician.

One of Dr. Kiefer's strongest allies and a man to whom we as a profession owe a great debt of appreciation is Senator James T. Upjohn, M. D., of Kalamazoo.

The Michigan State Medical Society can be justly proud of the unselfish and untiring work of Dr. Kiefer. It is a source of peculiar satisfaction to me, as President of the Society to inform the membership of his fine work and to voice our grateful acknowledgement of his services.

Very truly yours,

Louis J. Hirschman, M. D., President.

ANNUAL MEETING INVITATION

Members of the Council,
Michigan State Medical Society,
Gentlemen:

Now that spring has finally arrived we feel that it is incumbent upon us as a constituent member of the Michigan State Medical Society to offer, and one might almost say our regular annual offering, to entertain the members of the State Society at their 1930 convention.

In other words kindly consider that this is the official invitation of the Berrien County Medical Society to the Michigan State Medical Society to hold the annual meeting for 1930 in Berrien County in the twin cities of Benton Harbor and St. Joseph.

We will not at this time present to you the ad-

vantages and the facilities we have to offer for such a meeting, as most of you are aware of the potentialities of this district for such a gathering. We will however at a latter date present to you and the members of the House of Delegates of the Society a detailed list of hotel accomodations, and rooms for section meetings, entertainment and co-operative invitations from the various luncheon clubs, Chambers of Commerce and city officials.

We are writing at this time in order that it may be entered on the records of your body that Berrien County is still in the running and more anxious than ever to act as hosts to the annual meeting of the Michigan State Medical Society and will do all in our power to cooperate and aid in the success of the convention.

Sincerely,

W. C. Ellet, Secretary.

COUNTY SOCIETY ACTIVITY

Revealing Achievements and Recording Service

Frederick C. Warnshuis, M. D.

Secretary Michigan State Medical Society

NOW IT CAN BE TOLD THE 1929 LEGISLATURE

The 1929 session of the Legislature adjourned on May 8th with final adjournment on May 28th. This report sets forth in part the activity of your officers and legislative commission. It is quite impossible to impart the tremendous amount of time, labor, thought, worry and disappointments that attended the work of your representatives. No one, unless intimate contact was had, can fully appreciate the exasperating conditions that existed. Our reaction is one of varying conjectures and conclusions which will later be formulated for presentation to our House of Delegates.

No one will fully and appreciatively know or realize the service and time that was contributed by Dr. Guy L. Kiefer. He served with unfaltering faithfulness and utter disregard for his personal interests or his physical well-being. Page after page could be written recording incident after incident that reflected his zeal and earnestness to enhance our legislative interests. We accord recognition in most sincere terms fully realizing that adequate recognition or appreciation can never be expressed.

Record of appreciation must also be made to Governor Green. Without his aid and support pernicious and harmful bills would have become laws. Governor Green was a true and loyal friend of the medical profession of Michigan.

Commendable and helpful support was forthcoming from many of our members but specific mention of the service and time contributed by President L. J. Hirschman, Dr. R. E. Loucks, Dr. A. H. Whitaker and Dr. E. G. Martin must also be acknowledged. At critical moments, when important decisions were necessary, when compromises or "stand-pat" positions were to be assumed these members were available day or night. As a citation, mention is made of a 178-mile drive through pouring rain between the hours of 9 P. M. and 3 A. M. that these members made in response to an emergency conference call. To them do we extend special expressions of appreciation.

PRE-SESSION EFFORTS

The 19 months devoted to study of medical laws and the drafting of the professional qualifications bill by our Legislative Commission has been covered in reports submitted to the House of Delegates.

When, at our last annual meeting, the Legislative Commission was given mandatory instructions to introduce these bills, the Legislative Commission outlined a program of procedure. County Societies were requested to appoint legislative committees. As fast as these local committees were appointed they were recorded in a special file in the Secretary's office with a list of county presidents and secretaries, state officers and councilors. It was to these officials and members that the com-

munications of the Legislative Commission were addressed. They constituted our contacts throughout the state.

The next step was to send out a questionnaire seeking information regarding each senator and representative and requesting local committees to establish contacts with their legislators.

The third step was the holding of several regional conferences with members and legislators before the legislature convened.

The fourth activity was to participate in several conferences with the attorney general for the purpose of perfecting the legal verbiage of the two bills. When the final draft was completed the bills were printed in *The Journal* and reprints distributed to local committees.

The fifth step was to have several interviews with Governor Green to secure his endorsement of our bills and to designate when, how and by whom they were to be introduced.

Such was our pre-legislative program, readily recited in words but in actuality consuming a vast amount of time, labor and travel.

SESSION ACTIVITY

Our two bills were introduced by Senator Engel and referred to the Committee on Public Health of the senate, of which Dr. James T. Upjohn of Kalamazoo was chairman.

At about the same time there was introduced, in the house, a chiropractic bill. Later, in the senate, the osteopathic bill was introduced.

Now followed a seemingly unending, ever varying, hectoring and trying train of conferences, interviews and discussions that continued through to the last day of the session. They served to also clearly reveal the modern style of political methods. They were concerned with legislators, lawyers, chiropractors, osteopaths, druggists, Christian Scientists, beauty specialists, spiritualists, barbers, publishers of papers, optometrists, chiropodists and fanatics. All of whom had amendments they insisted upon being incorporated in our bills or who felt we were tying a noose about their necks. Even some of our own members created added problems and difficulties. It was a herculean task to deal with these varied groups with their particular quests. That task was discharged at no little cost of temper and worry.

One public hearing was had on the osteopaths' bill. This hearing was at-

tended by some 200 osteopaths and their attorney who was their spokesman. Our society was represented by Dr. Guy L. Kiefer, Dr. R. E. Loucks, Dr. A. H. Whitaker, Dr. G. C. Penberthy and the Secretary.

Eventually the four bills were reported out to the senate and all of them passed the senate. The chiropractic bill was accepted and no oppositions were made to it. Our opposition to the osteopathic bill was unavailing, largely due to a speech made on the floor of the senate by its introducer. This distorted and unreliable speech was later answered by an open letter to all the members of the legislature and our position set forth.

Under the rules, the bills went to the house and were referred to the Committee on Public health of the house. The chiropractic bill went to the Governor and had ten days in which to be signed or vetoed. A gentlemen's agreement was entered into with the chairman of the House Public Health Committee whereby he was to report our bills out in five days so that they and chiropractic bills could be signed on the same day. The five days passed and eight days passed. But two days remained within which our bills had to be reported out and passed or failing, the Governor had to veto the chiropractic bill to prevent it from becoming law.

The Governor was a patient in a Grand Rapids hospital. He was interviewed. He gave us a message at 4 P. M. A hurried trip, through a terrific rain storm, was made to Lansing. Interviews were had with the committee chairman who then finally showed his hand and informed us he would not report out our bills. The Detroit men were called to Lansing and the conference continued till after midnight. Early the next morning the return trip was made to Grand Rapids. The Governor was again seen and later in the day his secretary came to Grand Rapids with the formal veto which the Governor signed at five o'clock—twelve hours remaining ere the chiropractic bill would have become law were it not vetoed.

An interval now intervened in which, by request, several members were called to Lansing for a conference with Senator Woodruff and Governor Green. The osteopaths' representative thought a compromise might be accepted. Our position was definitely stated and by its terms a compromise was not made. We were informed a "fight would be on." Requests were then sent to all County Societies to increase

their protests to members of the house. Again there was evidenced some very good activity by some parts of the state while others remained dormant.

A week intervened with no outward evidence of any move by the Legislative Public Health Committee. Then on May 1st, seven days before adjournment, word was passed out that the chiropractor bill which had been vetoed would be tacked on as an amendment to our professional qualification bill and so reported out with the osteopathic bill. On May 2nd the Public Health Committee of the house reported out the osteopaths' bill, our bill amending the Medical Practice Act and the Professional Qualifications Act which had tacked onto it as an amendment the vetoed chiropractic bill. Your officers and commission felt that they had made sufficient representation to the members of the legislature and therefor refrained from further activity. It was concluded that the best course now would be to permit the legislature to record their vote. If the osteopathic bill passed, our last recourse would be Governor Green.

On May 6th the house passed the osteopath bill. The Professional Qualification Act was reported out with the previously vetoed chiropractic bill attached to it as an amendment. Under the rules both bills were returned to the senate where the osteopath bill was again passed and on a parliamentary point the qualification act with the chiropractic amendment was ruled out of order. The legislature adjourned on May 8th with the result that only the osteopath bill had weathered the session and was before the Governor for signature.

There now arose the final, somewhat hectic incident. After the adjournment, the Governor was flooded with some 2,000 telegrams urging him to sign the osteopath bill—more telegrams than he received on the "Death Penalty Bill." Then about two o'clock, on the afternoon of Saturday, May 11th, the information came through from a reliable source, that the attorneys for the osteopaths had filed with the Governor a lengthy brief substantiating in a most impressive way the osteopathic claims. To the uninformed these claims had face appearance of being conclusive facts, but upon analysis were grossly unsustainable. It was necessary to supply the Governor with refuting facts from reliable authorities. Long distance was employed far into the night. On Sunday, May 12th, our results were transmitted to

President Hirschman, Dr. Kiefer and Dr. Whittaker in Detroit and it was concluded that because of the nature of our returns and an intimation that had been received that a statement from Dr. Ray Lyman Wilbur, secretary of interior and also president of the American Association of Medical Colleges, was of uttermost importance. The pre-emptive order was to come to Detroit. A plane was secured and in an hour and fifteen minutes Detroit was reached. With Doctors Hirschman, Kiefer and Whittaker the entire situation was reviewed. An endeavor was made to summarize the situation in a telegram but it was impossible to do so because of the many related points that were necessary to clearly visualize the situation for Dr. Wilbur. The conclusion was that the Secretary should board a train and go to Washington because our representation had to be in the Governor's hands by Tuesday the 14th. This conclusion was reached at four o'clock. Reservation was secured on a six o'clock train, a pair of pajamas was purchased and Washington was reached at noon on Monday. Dr. Wilbur was interviewed at one o'clock and by three o'clock his signed statement was in our hands. A taxi enabled the catching of the 3:30 train that reached Detroit at 9 a. m. Tuesday and Lansing was reached in the afternoon. The obtained statements and exhibits were placed before Governor Green at 4 p. m.

Governor Green vetoed the osteopathic bill.

Such then is the tale of the 1929 legislature. Deductions, conclusions and opinions may be constructed. Such pronouncements had best be deferred until our annual meeting when a future policy is to be adopted.

In the entire encounter the helpful aid, judgment and devotion of time by the following members of the legislative committee merits every expression of appreciation—Doctors C. T. McClintic, J. H. Sundwall, J. B. Jackson, W. H. Marshall and J. E. McIntyre. At the annual meeting they will submit in their annual report some very pertinent recommendations. Till then, members are bidden to reflect on what has transpired.

HOW SOME OPINIONS ARE CREATED

Collectively we are appraised for an individualistic act. This is evidenced by the following letter. It would seem that it might be well to discontinue about fifty per cent of our public health education ac-

tivity and devote that time to educating the public as to what education is required to become a competent doctor and just what are the objects and activities of medical organizations. Your comments on this past legislative session is solicited.

April 22, 1929.

Louis J. Hirschman, M. D.,
1004 Kresge Bldg.,
Detroit, Michigan.

Dear Dr. Hirschman:

This letter is in reply to your communication of April 16th to the members of the House of Representatives, and also in reply to the printed circular under date of April 3rd forwarded to us by Dr. Warnshuis, Secretary of the Michigan State Medical Society.

In making this reply to you, I do so entirely in the spirit of constructive criticism, holding no brief for osteopaths, chiropractors, or any other school of mechanical or faith-healing, and having in mind, and extending full respects thereto, those sterling, Christian gentlemen who put personal and penurious interests behind them, and look only for the welfare of their patients. I refer to those doctors who look at their profession from the consumer's angle, which, after all, is a mighty fine way in which any of us should view his or her daily activities.

The provisions of the osteopaths' and chiropractors' bills are bringing to the mind of each of the members of the House of Representatives the inference that all is not well in the public mind with regards to the standing of the members of the A. M. A., and the present difficulties that the medical fraternity are experiencing in the Michigan legislature may be considered as a reaction of the general public to the methods and practice employed by some of the medical doctors during recent years. In other words, it is the handwriting on the wall that the medical fraternity has spots on it, and is due for an internal housecleaning, properly conducted by its own members and officers.

Within the last eighteen months, an eminent surgeon, during a gathering of men of his kind in an eastern city (and I deplore the fact that I lost the newspaper clipping, which I have had occasion to quote many times) stated that 95% of the surgery performed in America was needless, was merely inflicting a permanent wound on the body, and in the long run was discrediting the medical profession in the eyes of the consuming public. You may know, off hand, to whom I am referring. I am sorry I cannot give you his name as the clipping has been lost.

From my own personal experience, I must say that the medical services rendered to members of my family have been far from satisfactory, and has engendered in me a wholesome disgust of anyone who uses the term Specialist. I will outline some of our experiences briefly.

Exhibit One—Dr. X in 1915 performed an operation on my wife. While the fee charged was very reasonable, the results were almost negligible. Aside from this, the surgeon saw fit in his supreme ego to capitalize socially on the case. I will let you draw your conclusions in your own imagination.

Exhibit Two—Dr. Y in 1925 performed an operation on my wife, making a nine inch incision for a so-called exploratory operation, and removed from her a perfectly normal

appendix, as was proven after the operation by the nurse. This operation resulted in very intestinal adhesions, from which the patient suffers today. Of course, the bill was a trifling \$300, to say nothing of the hospital expense, the pain, fear and anguish. The basic trouble for which she was operated, remains today. Judge for yourself.

Exhibit Three—Dr. Z in 1927 operated on my nine-year-old daughter for what he termed a dangerously acute case of appendicitis. He removed a perfectly normal appendix, as was again proven by the nurse's testimony, sent me an invoice for \$150, which was only a small part of the total cost, to say nothing of the child's fear, terror and pain. Aside from this ailment, which we might in days past recognize as a plain, old fashioned case of belly-ache, this child is a physically perfect specimen. Again I ask you to judge for yourself.

Our experiences are mere samples of what the public is suffering at the hands of cross-road mechanics, who style themselves as surgeons, and who proceed through their crude guess work to abstract money from peoples' pockets by the instrument of fear, which is the same process used by the gunman in his tactics to relieve his victims of their money. Personally, I see no difference in the final outcome in either case if this surgery has been uselessly performed.

It cannot be expected that the general public are going to forever stand defenseless against such tactics as this. In my every day occupation, I am a banker, and many a wage earner comes to me soliciting a loan that his wife, or some other member of his family may have a surgical operation, and I am wondering if this surgery has been as brutal and as foolish as has been performed upon members of my own family, as I know it takes these men anywhere from three months to a year to discharge this debt incurred for such operations. Surely, the practice of "gyp" surgery in the case of low paid working men is an abominable crime.

This tirade may seem a long way from discussing the osteopath bill, but I am not the only one to whom people have told that they have gone from pillar to post, from one specialist to another, submitting to costly treatments, expensive operations, only to find themselves in worse condition than when they started. Some of these people have reported relief by osteopathic or chiropractic treatment. How much depends upon this latter treatment one can make, is questionable.

Now, let us sum this up into one paragraph: Is the medical profession actually performing a conscientious service to the lay public that gives them a cure or a relief at a *minimum of suffering and expense*? That is a question for the A. M. A. to answer, and when the A. M. A. can answer this question absolutely in the affirmative, then it has a right to demand that legislative bodies the country over will protect public health by restricting the business of administering to the sick, to the members of the A. M. A.

Again, I wish to assure you that this letter is intended strictly in the sense of constructive criticism. I like to see people well, and I like to see physicians prosper, but I do not like to stand by silently, just to be a shrewd politician, and see the public buncoed. I feel that it is time for the A. M. A. to rid itself of its fossilized code of ethics, which in the long run are almost mythical, and come down to a true competitive basis that

will give the public value received, the same as the manufacturer, merchant and the public utilities and other forms of human endeavor must do, in order to incur and maintain public good will.

Representative,
House of Representatives,
Lansing, Michigan.

Dear Mr:

I cannot fully convey my appreciation for your letter of the 22nd addressed to Dr. Hirschman with a copy sent to me. I recognize fully the creditable spirit that inspired and prevails through it. I would if I could answer it in full detail. To do so would require nigh on to a tome of pages, consequently I shall advance a few basic generalities.

May I cite first that for over a period of twenty years we have and still are cleaning house! In witness of which I advance the creating of acceptable medical educational standards, eradication of diploma mills, third and fourth rate colleges, standards for hospital administration, standards for interne training, qualifications for licensure, disciplinization of members, education of members, providing post-graduate opportunities for members to enable them to remain abreast of scientific progress, exposing of quacks and quack remedies, censure of fraudulent medical advertising on the part of doctors and a score more of similar activities all directed toward the one end—better educated doctors, more experienced doctors, the eradication of Kant and deceptive incompetency, for the inspiration of scientific competent practice that will result to the ultimate benefit of the people at large and the patient individually. This has been and is our quest. To more fully attain these ends is the underlying reason why we now ask our legislature to not re-open the side or back door that will license undertrained, undereducated and inexperienced individuals to foist their incompetency upon our citizens. Such endorsement by the legislature would lower standards which we have and do seek to maintain to assure competency. We have not gone as far as we would like. There have been many obstacles, legislatures have not been overly sympathetic and we are frequently but unjustly accused of ulterior motives. Nevertheless I can in full sincerity and honesty assure you that we are earnestly endeavoring to acquit ourselves of responsibilities reposed. I hope you will, from this necessarily brief recitation, concede that we are not neglecting keeping our house in order which you in your letter charge us as being derelict thereon.

You ask "whether the medical profession is conscientiously performing a service to the lay public." My answer is unequivocally *yes*. Witness: Our colleges, hospitals, laboratories, clinics; our studies, investigations, discussions and scientific discoveries and acquirements have uncovered hosts of mysteries, superstitions and facts as to disease and causes of deaths. We have materially reduced infant and maternal mortality, defeated typhoid, diphtheria, scarlet fever and other contagious diseases. Established effective principles of hygiene and healthful living and preventive measures. Our results are that in the last decade we have extended the average span of life from forty-five to fifty-eight years. Is this not a conscientious public service?

Further, we are imparting these facts to the people by our extension bureau which during this past winter gave talks and lectures before Parent-

Teachers' Associations, luncheon clubs, Granges and schools to the number of over three hundred with some one hundred eighty thousand attendants wherein we sought to impart to the people the truths of scientific medicine in order that they might know of and obtain its benefits in enhancing life welfare, health and longevity of themselves and their dependants. All of which was done without reference to school, cult or pathy. We have sought to impart that which scientific medicine holds and has for public life conservation and prevention of disease and suffering. Is that not a public service, rendered without cost or financial reward for public welfare? The public is woefully ignorant. Did we make no further discoveries, if the public would ascertain and apply what we now know *twenty-five years would be added to the span of human life*. Do you still accuse us of selfish and base motives? Do you believe we are wholly unresponsive to public weal or woe?

I might continue infinitum in submitting further illustrative facts but this letter will not permit. They are actualities that can be perceived by one if he will but inquire and learn and not be deluded or misguided by the falsifications, biases and unsubstantiable conclusions of those whose desires are ulterior and directed towards the attainment of a golden calf for self-worship and aggrandizement.

Your personal surgical experiences impress me. I cannot in fairness to your doctor, yourself and to myself, voice an opinion without further facts that are essential ere a dependable opinion can be advanced. Unfortunately such experiences are encountered, just as we do in law, banking, architecture and even clergy. None are infallible, yet I have encountered such experience which upon careful investigations uncovered circumstances that were important factors and altered the conclusion. I am not seeking to be evasive, I am trying to avoid conclusions until fully informed. I would welcome the opportunity to clarify the atmosphere for you.

As to the financial problem and cost of medical care permit me to state that we are not unconcerned with economic factors that present day life presents. We are concerned and as evidence of that concern we are conducting a survey that is to cover a five-year period in an endeavor to solve this economic condition. Ray Lyman Wilbur, secretary of interior, is chairman of this national commission. A year of work has been done, thousands of dollars of expense that this survey entails is being furnished by the *doctors themselves* and not by any legislature or government. We recognize the problem, it exists, we are endeavoring to obtain rectifying facts. However, in this as in the national problems of finance, marketing and farm relief the solution is not borne of the moment. I respectfully ask you to withhold caustic or deprecating criticism until we are possessed of dependable factors. Many economic and social as well as medical practices are involved in this condition that must be recognized and dealt with ere a solution or criticism can be honestly and fairly pronounced. I do assure you that osteopathic recognition will go far to complicate the situation in this as well as our other problems. Over a period of twenty-seven years of practice I have never perceived a gesture, act or deed on the part of osteopaths that would warrant dependency or lead one to believe that their quest is for public interest or that they were imbued with honest desires to help in solving the existing actualities.

I have thus disconnectedly sought to impart a partial insight of our activities. They are not complete. I trust they create a new viewpoint for you. If they do may I not ask you in return to aid as you can aid by upholding our objectives, by preventing a beclouding of the situation by injecting the factor of state recognition of a pathy that seeks lower standards. *Senate Bill No. 239 should not be enacted.*

If I can further serve you, please command me. I again express appreciation for your letter.

Very respectfully,

F. C. Warnshuis, Secretary.

FRACTURES

Within one day four notices of suits for malpractice in treatment of fractures were received. In two no X-rays were taken. In one, a Colles fracture, no attempt at reduction was made and of course malunion and deformity ensued. In the other attempted reduction is recorded but as no X-ray was had the doctor has no proof that he reduced the fracture and the X-ray obtained by the plaintiffs attorney reveals non-reduction and deformity. There can be no defense in either of these two cases. They are open incidents of neglect, lack of proper skill and care because one was in a town of 10,000 where two X-ray outfits were available and the other in a city of over 75,000 where at least six X-ray outfits were available.

Just why any doctor will be so negligent is unexplainable.

Again do we repeat and urge anew—never assume charge of a suspected fracture or fracture until you have had proper X-ray examinations before and after reduction. If difficulty is encountered in reducing the fracture obtain competent consultants.

CRIPPLED CHILDREN'S CLINICS

By agreement with the Crippled Children's Commission the co-operation and approval of the County Medical Society will be sought whenever a local clinic is to be conducted. It is greatly desired that local doctors will consult with and aid the visiting orthopedist conducting the clinic.

Before a clinic is scheduled County Secretaries will be requested to voice approval. Under this arrangement it is hoped that the conduct of these clinics will not be met with unfavorable criticism.

GOVERNOR'S VETO

To the President of the Senate.

Sir: I am returning herewith, without my approval, Senate Bill No. 239, File No. 152.

Osteopaths have just been given the right to prescribe, administer and dispense narcotic drugs to patients, House enrolled Act No. 283 which has received my signature. But this Bill would go further and give Osteopaths the right to practice

surgery, and have all the other powers of doctors of medicine and surgery. This law would permit those specializing in a single type of treatment to have equal privileges with those who have conformed to the requirements of a complete medical school training such as is provided at Michigan's outstanding medical school at the University.

There is a place for the practice of osteopathy. I am not objecting to it as a profession. There are within this group in Michigan many highly skilled practitioners, and the profession as a whole is accomplishing a great deal in relieving human ailment. They are to be congratulated upon their constant endeavor to advance their standards and requirements. I do, however, maintain that the state should not set up two separate and distinct routes through which to reach the objective of receiving the sanction of the state in the complete and unlimited practice of medicine and surgery.

If, in addition to the additional privileges recently granted, the members of the osteopathic profession wish to be licensed to practice medicine in all of its branches, as provided in this bill, they should meet requirements now made of those who now receive that privilege. I cannot add my sanction to a bill which sets up a double standard of required qualifications.

Therefore, I veto this bill.

Respectfully,

(Signed) Fred W. Green,
Governor.

SENATOR COUZENS' GIFT

April 23, 1929.

Honorable James H. Couzens,
United States Senator,
Washington, D. C.

Dear Mr. Couzens:

Pending more formal action and expression on the part of our officers and members kindly permit me to convey to you at this time sincere expressions of commendation for your recent admirable contribution that will enhance the physical welfare of the child of today—the citizen of tomorrow.

Expressions cannot reflect or record the nobleness of your deed and the untold good that will attend your action. No one can adequately visualize the comfort, freedom from suffering and the efficiency of character and physical constitution that your gift will bequeath to the children of this commonwealth. The knowledge that you have made life brighter and better for these children should and will bring to you a most satisfying pleasure and restful contentment.

We who have striven to bring about a more efficient, administering medical personnel for public welfare are inspired and profoundly grateful to you, for you have co-incidentally aided us in our quest by your example that bids us to continue to bring about a higher level of orthopedic and pediatric services to all of Michigan.

With assurances of esteem, coupled with cordial greetings, permit me to be,

Yours respectfully,

F. C. Warnshuis, Secretary.

April 25, 1929.

Dear Dr. Warnshuis:

I have your letter of the 23rd conveying a most cordial and generous expression of your approval of my having recently created the Children's Fund of Michigan.

Coming from you as an officer of the Michigan

State Medical Society, I am particularly pleased with its encouragement as well as its inspiration. I hope that you and your associates will be able to be helpful to us.

With thanks and best wishes, I am

Cordially yours,

James Couzens.

OFFICIAL CALL

To the officers, fellows and members of the American Medical Association:

The eightieth annual session of the American Medical Association will be held in Portland, Oregon, from Monday, July the 8th to Friday, July the 12th, 1929.

The House of Delegates will convene on Monday, July the 8th.

The scientific assembly of the association will open with the general meeting held on Tuesday, July the 9th, at 8:30 p. m.

The various sections of the scientific assembly will meet Wednesday, July the tenth, at 9 a. m. and 2 p. m. and subsequently according to their respective programs.

WILLIAM S. THAYER,

President

FREDERICK C. WARSHUIS,

Speaker, House of Delegates

Attest:

OLIN WEST,

Secretary

HOUSE OF DELEGATES

The House of Delegates will convene at 10 a. m. on Monday, July 8, 1929, in the ballroom of the Multnomah hotel, 269 Pine street, Portland, Ore.

Representation—The appointment of delegates made at the Minneapolis session of 1928 entitles your state association to five delegates for 1929-30-31.

"A member of the House of Delegates must have been a member of the American Medical Association and a fellow of the scientific assembly for at least two years next preceding the session of the House of Delegates at which he is to serve."

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States army, United States navy and United States Public Health Service shall hold office for two years." Chap. I, Sections 1 and 2, By-Laws.

SCIENTIFIC ASSEMBLY

The general meeting, which constitutes the opening exercises of the scientific assembly of the association, will be held Tuesday evening, July 9, 1929, at 8:30. The sections will meet on Wednesday, Thursday and Friday, July 10, 11 and 12, 1929.

Convening at 9 a. m. the sections on Practice of Medicine; Obstetrics, Gynecology and Abdominal Surgery; Laryngology, Otolary and Rhinology; Pathology and Physiology; Orthopedic Surgery; Urology; Radiology; Preventive and Industrial Medicine and Public Health.

Convening at 2 p. m. the sections on Surgery, General and Abdominal; Ophthalmology; Diseases of Children; Pharmacology and Therapeutics; Nervous and Mental Diseases; Dermatology and Syphilology; Gastro-Enterology and Proctology.

LEGISLATIVE BILLS

We append below a brief digest of bills relating to medicine that were introduced in the session of the legislature that has just adjourned. The Journals senate and house was checked for each day of the session. If a bill whose title indicated a medical relationship was noted a copy of the bill was secured and its provisions studied. In the March Journal we published a similar listing of bills that were introduced in the first weeks of the session.

These bills indicate the degree of legislative invasion of the practice of medicine and legislators' quest to regulate and direct medical service. In this there is much for thought. It is quite apparent that our interests are becoming more and more involved by inhibitory legislation. It is equally apparent that we are not, as doctors, self sufficient. Neither do we have the full confidence of the people. The tendencies manifested clearly indicate that the protection of our legislative interests is a major and serious problem. Just what our interests and the position that we must assume will be of first importance in the deliberations of the House of Delegates at Jackson meeting.

In re: House Bill No. 78.

This bill was introduced by Mr. Boyle January 30, 1929, and is a bill to provide for the detention of insane persons and for examination in certain cases.

This bill was referred to the Committee on State Affairs and was reported out by them on February 15, 1929, and referred to the Committee on Judiciary.

In re: House Bill No. 142.

This is a bill to provide for County Infirmaries by two or more counties.

This bill was introduced on February 13, 1929, by Mr. Milliman. The bill was referred to the Committee on Public Health.

In re: House Bill No. 135.

This bill was introduced February 11, 1929, by Mr. Culver. It was referred to the Committee on Public Health, but has not yet been reported out by that committee.

This bill proposes to increase the jurisdiction of the Probate Court. It provides for the commitment of certain persons to the Wayne County hospital. It provides for their detention, treatment and release therefrom and it authorizes contracts between the County of Wayne and other counties for the care of persons committed to the Wayne County hospital and such other counties.

Section I of the bill provides that whenever any person shall have been charged with a criminal offense in any court of competent jurisdiction in this state, and it appears that such person is; (1) habitually addicted to the use of habit-forming drugs, (2) exhibits, obsessions, phobias, hallucinations, complexes or other mental states not amounting to actual insanity which renders him incompetent to properly care for himself, (3) is

suffering from an abnormal mental state induced or caused by toxic condition following physical disease, (4) is in danger because of abnormal condition of becoming morally depraved, (5) declares himself progressing toward mental incapacity from any cause, and (6) after examination by three competent physicians, appointed by such court, is declared by such physicians to be progressing toward serious mental incapacity and in definite need of preventive or prophylactic psychopathic treatment, the court may in lieu of imposing other sentence for such offense, direct the prosecuting attorney and others, to file a petition in the Probate Court setting forth the classification that such person is within as above set forth and pray that such person be committed by order of the Probate Court to the Wayne County hospital.

Section II gives authority to the Probate Court to receive here and try such issues.

Section III provides that such a petition may be filed by a father or mother and others, of any person as set forth in this Act.

Section IV provides that the Probate Court shall fix a day for hearing and appoint not less than two reputable physicians to examine the person sought to be committed and certify to the Court before such hearing, the result of their examination.

Section IV also provides the method of service of notice of said hearing, and provides that such person shall have the right to be present at such hearing unless it shall be made to appear to the Court by a certificate of two reputable physicians that his condition is such as to render his removal for that purpose, or his appearing at such hearing improper and unsafe.

It also provides that if such person shall, upon such hearing, be found and adjudged to be a person of the class mentioned in Section I, the Court shall immediately issue an order for his admission to the Wayne County hospital for treatment and such order shall remain in full force and effect until such patient shall be discharged from such hospital, but in no event, for a longer period than two years.

Section V provides that the Medical Superintendent is authorized to release any person so committed to his custody at any time during the period of his commitment, to any relative of such person, Superintendent of the Poor, or regularly incorporated social agency upon such condition as such Medical Superintendent may prescribe, and such Medical Superintendent shall notify the Judge of Probate in writing of the release or final discharge of any person committed to such hospital under this Act.

Section VI provides in case of persons committed from other counties than Wayne County, the respective counties from which such persons are committed, shall be liable to the County of Wayne for the care and support of such persons while in the Wayne County hospital, in an amount to be determined by a contract between the Board of Supervisors of the County of Wayne and the respective Board of Supervisors of other counties in the state, said amount to be computed according to the approximate cost necessary for the care of such person committed.

Section VII provides for a right to appeal.

Section VIII provides that the provisions of law governing the jurisdiction of Probate Courts in hearing petitions for the admission of insane persons to the several hospitals in this state shall apply to all hearings under this Act.

Section IX is the usual constitutionality or invalidity provision.

It seems to us that this bill is rather far-reaching in its classification of persons who shall come under this Act, but we do not know as you are particularly concerned with this phase of the legislation. In every case where an examination is provided for, it provides that the examination shall be made by competent or reputable physicians or surgeons.

In re: House Bill No. 158.

This bill was introduced February 14, 1929, by Mr. Culver. This bill was not printed until it was placed on general orders in the House, which was March 28, 1929.

This bill amends Section III of Act No. 314 of the Public Acts of 1927, being an Act to protect the people from tuberculosis and to provide for the care, treatment and hospitalization of persons afflicted therewith and to prescribe penalties for violation of this Act.

This section in particular is amended by the insertion of the words "Board of Auditors" and by the addition of the following:

"It shall be the duty of the Health Officer of each city, village, township, county or district to determine the financial ability of such person to pay for the treatment received excepting in counties having a Board of County Auditors, in which cases said board is authorized to make inquiry as to the financial standing of all persons receiving such care, treatment or hospitalization; provided, that said Board of Auditors may, at its discretion, enter into agreements with the persons benefited under this Act for reimbursement for the expenses incurred by said county in furnishing such care, treatment or hospitalization."

In re: House Bill No. 159.

This bill was introduced February 14, 1929, by Mr. Culver. It is a bill to amend Section XIII of Act No. 177 of the Public Acts of 1925, being an Act to protect the public health and to provide for the construction of hospitals, etc.

In re: House Bill No. 159.

In regard to the above entitled bill which amends Section 13 of the 1925 Act to provide for the construction, maintenance and operation of hospitals and sanitoriums for the treatment of tuberculosis by adding the following provision, viz.:

"That it shall be competent for any city in this state having a population of more than 100,000 to establish, maintain and operate a hospital for the treatment of tuberculosis, and in such city, is authorized and empowered to raise by taxation the necessary funds for the purpose of constructing such hospital or sanitorium. The Board of Health of any such city shall be vested with the management of such hospital and the State Board of Health shall inspect such hospital and if it conforms to the provisions of this Act, the State Board of Health shall approve the same, whereupon the Board of Supervisors of the county may contract with the city owned hospitals for the care, treatment and hospitalization of county patients afflicted with tuberculosis and said county shall be entitled to receive for all such cases reimbursement from the state for such patients as provided for county owned institutions under this Act and in the same manner."

In re: Senate Bill No. 169.

This is a bill introduced by Senator Upjohn

which gives the State Commissioner of Health power to inspect private tuberculosis hospitals and authorizes the payment of \$1.00 a day by the County Treasurer of the county where the private hospital is located, provided the private hospital complies with the rules and regulations of the Commissioner of Health as to the equipment and type of hospital maintained.

The reason why this bill was introduced was because a man by the name of Dr. Shepard residing in Dr. Upjohn's district, has a hospital that he would like to get this aid for. The writer took the bill up with Dr. Kiefer some time ago, and the doctor stated that he knew the reason why the bill was introduced and had no objection to it.

This bill has passed both houses and was on April 2, 1919, enrolled, printed and presented to the governor.

In re: Senate Bill No. 170.

This bill was introduced by Senator Person on February 6, 1929, and provides that the State Administrative Board may, in its discretion, appropriate any or all of 914.61 acres owned by the state and inventoried to the Boys' Vocational School for the purpose of a site for a state hospital.

This bill was referred to the Committee on State Hospitals.

In re: House Bill No. 180.

This bill was introduced February 11, 1929, by Senator Howell, and referred to the Committee on Transportation. This committee reported the bill out with amendments, which amendments were concurred in and the matter was referred to the Committee of the Whole and placed on general orders February 28, 1929. On March 11, 1929, the bill was reported out by the Committee of the Whole with amendments and ordered reprinted. On March 18, 1929, the bill passed the Senate and was transmitted to the House on the same day and referred to the Committee on Transportation.

This is a bill to provide for the examination and licensing of operators and chauffeurs of motor vehicles, etc. It is commonly referred to as the "Hoover Bill" or the "Uniform Operators' and Chauffeurs' Licence Act."

Section C of the bill provides that the Commissioner of Public Safety acting directly or through its duly authorized officers, agents and employees, shall not recommend and the department shall not issue an operator's or chauffeur's license to any person who is an habitual drunkard or who is addicted to the use of narcotic drugs. The Act does not provide a method or outline the means by which the commissioner shall arrive at this conclusion.

Section 5 E provides that the department shall not issue an operator's or chauffeur's license to any person when in the opinion of the commissioner, such person is afflicted with or suffering from such physical or mental disability or disease as will serve to prevent such person from exercising reasonable and ordinary control over a motor vehicle while operating the same upon the highways. This provision is also subject to the objection that there is no means provided or stated as to how the commissioner shall arrive at the conclusion that a person is "afflicted with or suffering from physical or mental disability or disease."

Section 10 A provides that the commission, upon receipt of the proper application and fee here-

inbefore provided, shall examine or cause to be examined every applicant for an operator's or chauffeur's license before recommending any such license except that the commissioner may in his discretion waive the examination of any person applying for the renewal of an operator's or chauffeur's license issued under this act or any prior act who at the time of such application, has a valid unrevoked license issued under this act, or any prior act of this state. It also provides that the commissioner shall establish rules and regulations for the examination of the applicant as to his physical and mental qualifications to operate a motor vehicle in such manner as not to jeopardize the safety of persons or property and ascertain whether any facts exist which would bar the issuing of a license.

Section 12 C provides that the Commissioner upon determining after an examination that an applicant is mentally and physically qualified to receive a license, may issue to such person a temporary driver's permit entitling such person, while having such permit in his immediate possession, to drive a motor vehicle upon the highways for a period not exceeding 20 days before issuing to such person an operator's or a chauffeur's license.

Section 18 A provides that whenever the department has reason to believe that any licensed operator or chauffeur is incompetent to drive a motor vehicle or is afflicted with mental or physical infirmities or disabilities, rendering it unsafe for such person to drive a motor vehicle, the department after notice as hereinafter provided to such person, may conduct an investigation and require an examination of such person in the county wherein such person may reside, and upon good cause appearing thereon may thereupon suspend or revoke the license of such person.

This bill does not provide the method by which the commissioner shall arrive at the physical or mental disabilities or infirmities of the applicant for the license. It does not state whether this is to be a lay examination or whether it is to be by a reputedly licensed physician or surgeon or whether the examination is to be made by some public health official.

Not passed.

In re: House Bill No. 192.

This bill was introduced February 21, 1929, by Mr. Ate Dykstra. This is a bill to regulate the occupation of beauty culture, to provide for a board for the examination and licensing of persons who practice that trade.

This bill was referred to the Committee on State Affairs and has not been reported out by them.

In re: House Bill No. 194.

This bill is a new one and it provides that "in every action for malpractice brought against any physician, surgeon or osteopath, if plaintiff shall establish that defendant was employed and treated or administered to plaintiff in his professional capacity, and that plaintiff sustained damages as a result thereof, shall be deemed prima facie evidence of defendant's negligence and that he did not exercise ordinary care, knowledge and skill in the administration of such treatment."

In our opinion, this bill is very dangerous due to the fact that it substitutes a new rule of evidence and if this bill should be passed, we feel that it would be considered constitutional by the Supreme Court, but also think that it goes so far that in its particular application, it would probably be a nullity.

This bill has passed the House and died in the Senate.

In re: Senate Bill No. 194.

This bill was introduced on February 13, 1929, by Senator Gansser and amends the present law to provide for the construction, maintenance and operation of hospitals and sanitoriums for the treatment of tuberculosis by providing that the American Legion Hospital at Camp Custer, Battle Creek, Michigan, shall be included and considered upon the same basis as a County sanitorium for all of the purposes of this act.

In re: House Bill No. 197.

This bill was introduced February 21, 1929, by Mr. Kistler. This bill was referred to the Committee on Public Health and was not printed until it was recently placed on general orders in the House. It is a bill to amend Section 12 of Act 343 of the Public Acts of 1925 being an Act to provide for the registration of births and deaths in this state; the appointment of the registrars thereof; requiring physicians and others to make reports, etc.

This amendment in particular provides that all persons whose births have not been registered owing to the refusal or neglect of those responsible for registering the same, may have their birth registered or any person interested in such birth or births, may at any time after the expiration of five days, make application to the Probate Judge of the proper county presenting to him an application in writing in like form and containing the same information with the exception of the certificate of the attending physician as is now commonly set forth in the regularly used birth certificate and in addition thereto, the reasons, if any, why said birth was not registered within the five days provided by this Act. Said application shall be signed by the person making the same and shall state whether the applicant is a friend, relative or the person whose birth is to be registered. Said application shall be accompanied by the affidavits of two competent persons who know of the facts of the birth and shall set forth the name, place of birth and date of birth of the person whose birth is to be registered and whether the affiant is a friend, relative or otherwise, together with as complete an address as possible of the affiant. If said Probate Judge is satisfied that the application and the affidavits confirm to this Act, he shall countersign said application, and the same, together with the affidavits attached thereto, may be filed with the registrar of the proper district as herinbefore provided for the original registration of births and the same shall be a record of said birth with like force and effect as if a certificate of said birth had been originally registered as hereinbefore provided.

In re: House Bill No. 201.

This bill was introduced February 22, 1929 by Mr. Fisher. It is a bill to amend Act No. 151 of the Public Acts of 1923, which is a bill to revise and consolidate the laws representing hospitals for the insane and feeble-minded and to provide for licensing of privately owned hospitals.

This bill was referred to the Committee on Public Health.

In re: House Bill No. 203.

Section 1 provides that it is hereby declared to be the policy of the state to prevent the procreation and increase in number of feeble-minded, insane and epileptic persons, idiots, imbeciles,

mental degenerates and sexual perverts likely to become a menace to society or wards of the state.

Section 4 provides that whenever the medical superintendent of the various insane hospitals, enumerating them, or any other hospital, training school, farm colony, private or public institution maintained and supported in whole or in part by the state of Michigan, shall be of the opinion that any inmate under the custodial care of such institution is a mentally defective person, who would be likely to procreate children unless confined or rendered incapable of procreation; that such children would have a tendency to mental defectiveness, and there is no probability that the condition of said defective person will improve and that it is for the best interests of such person and of society that such mentally defective person should be sexually sterilized, it shall be the duty of such medical superintendent or principal officer, to bring to the attention of the governing board of such institution and the State Welfare Commission, the facts, records and history, traits and mental and physical condition of such person so far as the same can be ascertained.

It shall be the duty of the governing board or body of such institution and the State Welfare Commission to cause an investigation to be made to determine whether such mentally defective person would be likely, if allowed to mingle in society, to procreate children, having an inherited tendency to feeble-mindedness, insanity, idiocy, imbecility, epilepsy or sexual degeneracy, and who would be likely to become a social menace or ward of the state, and whether there is any probability that the condition of such person would improve to such an extent as to avoid such consequences. It shall be the duty of such governing board and the State Welfare Commission, to keep a record with reference to each such persons embodying its findings and conclusions in said respects and to file or cause to be filed a petition in the Probate Court of the county in which such mentally defective person was a resident, at the time of commitment or in the Probate Court of the county in which such institution may be situated for the purpose of carrying out the provisions of this Act and to procure an order directing the sterilization of such defective persons.

Section 5 provides that the father, mother, etc., or medical superintendent may petition the Probate Court of any county in which a mentally defective person resides or where such institution is located directing such treatment or operation of vasectomy, salpingectomy or other operation or treatment as may be least dangerous to life, to effectively render said defective person incapable of procreation.

It also provides that notice of such hearing shall be personally served at least ten days before the date of hearing upon such persons or next to kin and certain other methods of service.

Section 6 provides that the Court shall appoint two reputable physicians who shall make an investigation of the mental and physical condition and personal and family history of such defective and report the same to the Court with the opinion of said physicians as to whether said person is a defective person within the meaning and intent of this Act who should be rendered incapable of procreation. These certificates shall be filed with said Court before an order shall be made for such operations or treatment. The Court shall at such hearing take testimony in writing as to the mental and physical condition of such defective person and the history of his case, and shall, if no jury is required, determine whether he is a

mentally defective person subject to be rendered incapable of procreation in order to prevent the production of children who may be mentally defective or a menace to society.

Section 7 provides for the summoning of a jury if demanded.

Section 8 provides that whenever, at such a hearing, it shall be found that such person is a mentally defective person, who would be likely to procreate children unless he be closely confined or rendered incapable of procreation, that such children would have a tendency to mental defectiveness and that there is no probability that the condition of said defective person would improve and the Court shall find that such children might be a menace to society or become wards of the state, the Court shall make an order requiring and specifying that such defective person shall be treated or operated upon by certain specified methods best suited to the condition of such person and most likely to produce the beneficial results intended by this Act.

It also provides that the Court may in said order direct that such defective person be admitted at the University Hospital at Ann Arbor for such operation or treatment whenever the mental and physical condition of such person is such that he may be admitted and cared for in said hospital, or may direct that such operation or treatment be performed by a reputable surgeon whose duty it shall be to perform such operation or treatment in accordance with said order. The expense of such operation or treatment, together with physician's fees and all other expenses incurred in connection with such proceeding, shall be a proper charge against the state of Michigan.

Section 12 repeals Act No. 285 of the Public Acts of 1923 entitled "An Act to Authorize the Sterilization of Mentally Defective Persons" and amendments thereto.

This bill provides for examinations by physicians and surgeons and makes their fees a debt against the state of Michigan. The bill also provides that the Probate Court may provide for the operation to be performed at the University Hospital at Ann Arbor (if the person can be admitted to that institution) or to order the operation to be performed by a reputable surgeon.

In re: House Bill No. 203.

This bill was introduced February 22, 1929, by Mr. Cuthbertson and is a bill to prevent procreation of feeble-minded, insane, epileptic, moral degenerates, sexual perverts and to provide for sterilization.

This bill was referred to the Committee on Public Health and was reported out by them and referred to the Committee of the Whole and placed on general orders March 28, 1929.

After the consideration of the bill by the Committee of the Whole, it was placed upon the order of third reading of bills, March 29, 1929. When the bill came up on the third reading, it was ordered re-referred to the Committee on Public Health April 1, 1929.

In re: Senate Bill No. 217.

This bill was introduced February 20, 1929, by Senator Heidkamp and amends the present law in regard to the conducting, establishing, maintaining or carrying on without a license of any maternity or lying-in hospital for the receiving, caring for, or treating of females during pregnancy, etc., and provides that all the duties, rights and powers of the State Board of Corrections and Charities having been transferred to

the State Welfare Commission, the licenses provided for in the law, shall be issued by the State Welfare Commission.

In re: House Bill No. 273.

This bill was introduced March 8, 1929, by Mr. Culver. It is a bill to amend Act No. 267 of the Public Acts of 1915, being an Act to provide free hospital service and medical and surgical treatment for persons afflicted with a malady or deformity which can be benefitted by hospital treatment who are unable to pay for such care and treatment and for pregnant women unable to pay for such care and treatment and for children of such pregnant women born during the period of hospital care and providing for the expense thereof, and prescribing the jurisdiction of the Probate Court in said cases.

This bill was referred to the Committee on Public Health.

In re: House Bill No. 273.

In regard to this bill which is a bill introduced to amend Act No. 267 of the Public Acts of 1915 which provides free hospital service and medical and surgical treatment for persons afflicted with a malady or deformity which can be benefitted by hospital treatment, etc.

The amendments provide that in counties having a Board of County Auditors, an investigation as to the financial condition of persons seeking medical aid under this Act, shall be made by the Board of County Auditors and that said board may enter into agreement with parties benefitted under this Act for reimbursement of expenses.

It also provides that instead of sending all patients to the University Hospital at Ann Arbor, the Judge of Probate may, in his discretion, order any person coming under this Act, treated in any city or county hospital when such institutions are maintained and operated as general hospitals for the care and treatment of the sick and afflicted. The balance of the amendments provide the machinery necessary to take care of these changes in the Act.

In re: Senate Bill No. 288.

This bill was introduced March 13, 1929, by Senator Jankowski and is a bill to create a commission to investigate the use of narcotics and habit-forming drugs and to prescribe the powers and duties of the Commission.

This bill was referred to the Committee on Public Health.

In re: Senate Bill No. 288.

This is a new bill to create a Commission to investigate the traffic in and use of narcotic and habit-forming drugs, weeds, roots, herbs and compounds; to prescribe the powers and duties of the Commission and to make in appropriation therefor.

Section 1 provides for the creation of a Commission to be known as the Michigan Narcotic Commission to be composed of nine members, two of whom shall be members of the Senate appointed by the Lieutenant Governor, two of whom shall be members of the House of Representatives appointed by the Speaker, one of whom shall be a Commissioner or a member of the Detroit Public Safety Department appointed by the Governor, one of whom shall be a Commissioner or a member of the Detroit Police Department appointed by the Governor, and three of whom shall be citizens appointed by the Governor. The members shall serve without pay but their necessary expenses

while engaged in the work of the Commission shall be paid. It provides for the employment of a secretary and such other assistants as the members may deem necessary but in no case shall the amount of salaries and expenses exceed the amount of the appropriation hereinbefore provided.

Section 2 provides that it shall be the duty of the Commission to investigate the use and sale of narcotics, etc., within the state of Michigan, with a view to determining so far as possible, the extent of such traffic, the extent to which addiction to the use of such narcotic and habit-forming drugs, etc., has spread among the residents of this state, and the remedies which may be applied to stamp out such traffic.

Section 3 provides that the Commission shall have authority to subpoena witnesses and records, to administer oaths and to require witnesses to testify; provided however, that no testimony adduced before such Commission, shall be admissible in any criminal proceeding. Failure on the part of any person subpoenaed and required to testify or to produce papers or records, shall be a misdemeanor and shall be punished by a fine of not more than \$100 or by imprisonment in the county jail for not more than 90 days or by both such fine and imprisonment.

Section 4 provides that the Commission shall report its findings together with its recommendations of any measures that it may deem expedient to prevent or reduce the traffic in or use of narcotics or habit-forming drugs, etc., within the state of Michigan, to the Governor and Legislature, not later than January 15, 1931.

Section 5 provides for an appropriation out of the general fund for the fiscal year ending June 30, 1930 in the sum of \$7,500 and for the fiscal year ending June 30, 1931, in the sum of \$7,500.

Section 6 provides that the Auditor General shall incorporate in the state tax for the years 1929 and 1930, sufficient amounts to reimburse the general fund for the appropriations hereby made.

In re: Senate Bill No. 309.

This bill amends Section 16 of Act No. 254 of the Public Acts of 1905 and does away with the present Section 16 and inserts the following as Section 16:

"Any person designated in Section 15 of this Act as a patient of the first class, shall be admitted to State Sanitoriums only upon a certificate by the Superintendent of the Poor of the county in which said person is a resident, approved by the Judge of Probate of said county. Said certificate shall show that such person is a resident of said county, is indigent and unable to pay the necessary expenses for residence and treatment at said Sanitorium. The State Tuberculosis Sanitorium Commission is hereby empowered to direct and fix the rate, etc., subject to the approval of the State Admission Board. The state shall share in the expense of the care, treatment and maintenance of said indigent patient to the extent of \$1.00 per day for each day of such care, treatment and maintenance. All other expenses for the care, etc., shall be the sole obligation of the county of their residence and shall be a proper charge against such county at the rate fixed therefor. It shall be the duty of the County Treasurer of such county, to reimburse the state of Michigan therefor, by paying such amount into the State Treasury forthwith, upon receipt of statements from the Auditor General showing the amount thereof."

The balance of the Section provides for the distribution of the money by the Auditor General.

In re: Senate Bill No. 310.

This bill contains entirely new subject matter and is a bill to create a Tuberculosis Sanitorium Commission.

Section 1 provides that the State Health Commissioner shall be ex-officio a member of such Commission and shall act as chairman thereof. Six other members shall be appointed by the Governor. Two of such members shall be duly licensed and practicing physicians of this state who have had at least six years' experience in the practice of medicine and surgery and in the treatment of tuberculosis. Two members shall be appointed upon recommendation of the Board of Regents of the University of Michigan. Two other members shall be appointed among resident citizens of this state. The balance of the Section provides for a rotating term of office of three years.

Section 2 provides that the Commission shall be a body corporate with all powers necessary to carry this Act into effect and with power to receive gifts, grants, devises, and bequests to the state of Michigan for the benefit of any of the State Tuberculosis Sanitoria.

Section 3 provides that the Commission shall form its own organization except as to chairman and shall elect a secretary and treasurer and make and adopt its own rules of procedure. Members shall receive no compensation for their services except that actual and necessary traveling expenses may be authorized by the Commission and paid as the expenses of other state officers are audited and paid.

Section 4 provides that all of the powers and duties of the Board of Trustees of the State Sanitorium at Howell are hereby transferred to the Tuberculosis Sanitorium Commission. The Board of Trustees of the State Tuberculosis Sanitorium at Howell shall be abolished from and after 12 o'clock noon of the first day of July, 1929, at which time, the Tuberculosis Sanitorium Commission shall assume and succeed to all of the rights, powers and duties of said Board of Trustees.

Section 5 provides that the Commission shall have supervision and control over any other State Tuberculosis Sanitorium hereafter to be established. It shall have the same powers thereover as given by Act 254 of the Public Acts of 1905 as amended for the supervision and control of the State Sanitorium at Howell. All of the provisions of said Act as amended shall govern the admission, control and expense of patients in all state tuberculosis sanitoria. The Commission shall fix the rate and expenses for treatment, care and maintenance of all patients subject to the approval of the State Administrative Board. The state shall share in the expense and the care, etc., of indigent patients to the extent of \$1.00 per day each for each day of such care, treatment and maintenance. All other expenses for the care, etc., shall be the sole obligation of the county of their residence. It shall be a proper charge against such county at the rate fixed therefor. The Commission may transfer such patients from any tuberculosis sanitorium to the University Hospital at Ann Arbor and from such University Hospital to any state tuberculosis sanitorium or to their homes and the county from which such patient was admitted, shall pay the rate established for either institution, together with the cost of such moving expenses.

Section 6 provides that all state tuberculosis sanatoria shall be regulated and subject to the rules and regulations governing other state hospitals so far as applicable when not inconsistent with the provisions hereof. The Commission shall have authority to formulate and enforce any additional rules and regulations that it may deem necessary to adopt.

Section 7 provides that whenever facilities are provided at the University Hospital at Ann Arbor for the care of tuberculous patients, the services of the medical faculty at the University Hospital shall be available for consultation, treatment and advice in all cases referred from other state tuberculosis sanatoria.

Section 8 provides that neither the University of Michigan nor any member of the faculty thereof nor the University Hospital nor any officer thereof, nor the Regents of the University of Michigan, shall be allowed or paid any fees or charges for consultation for professional services rendered to any public tuberculosis patient in the University Hospital at Ann Arbor or any other state tuberculosis sanatorium or, to or for the Commission in connection therewith except the rate which shall be established for the care, etc., of the patient. The tuberculous patient in the University Hospital shall be available for clinical purposes and observation for the students and faculty of the University of Michigan under such reasonable rules and regulations as the Board of Regents and medical faculty may have established.

Section 9 provides that this Act is deemed to be necessary for the peace, health and safety of the state and shall be given immediate effect.

In re: Senate Bill No. 327.

This bill was introduced March 28, 1929, by Senator Branson. It is a bill to amend the present law in regard to the policy with reference to crippled children, their examination, diagnosis, care and education and the conduct of hospital schools.

This bill was referred to the Committee on Judiciary.

In re: Senate Bill No. 327.

This bill amends the present law in regard to the policy with reference to cripple children, their examination, care nad education and the conduct of hospital schools.

It provides for the payment of reasonable per diem as the Michigan Crippled Children Commission may have agreed upon as compensation to the designated necessary orthopedic surgeon. It also provides that patients may be sent by the Probate Judge to other hospitals than the University Hospital at Ann Arbor. It also provides that the rates in the hospitals must be approved by the Michigan Crippled Children Commission and the State Administrative Board. It also provides that the University Hospital, or other hospital, shall promptly report to the Superintendent of Michigan Crippled Children Commission on blanks to be provided by the Commission for that purpose, the admission to and discharge from such hospital. A copy of such report shall be sent to the Judge of Probate of the county from which such patient was sent, such report to contain complete information as to the nature of the disease, nature and date of operation if any, and recommendation for after care and whether or not such patient is to be returned to such hospital later for further observation and treatment.

It also provides that during convalescent peri-

ods from such orthopedic hospitals for the purpose of convalescence, the Commission may designate local hospitals and surgeons for the care of such patients and fix their compensation therefor and the Judge of Probate of such county shall issue an order to the Auditor General for the payment of such sums so contracted for by the Commission. This bill has passed the Senate and has been transferred to the House and referred to the Committee on Public Health.

In re: Senate Bill No. 365.

This bill was introduced April 10, 1929, by Senator Gansser. It was referred to the Committee on Counties and Townships who reported the bill out and requested that it be referred to Committee on Public Health April 18, 1929.

On April 19, 1929, the bill was reported out by the Committee on Public Health and referred to the Committee of the Whole. The bill provides for a County Poor Physician and fixes his compensation, describes his duties and regulates the liability of the county for the care of indigent persons afflicted with diseases. Section 1 provides that on a petition of not less than 10 per cent of the resident free holders of the county, the Board of Supervisors may appoint a County Poor Physician who shall hold office for a period of one year or until a successor is appointed and qualified.

Said physician shall be a graduate of a Class "A" School of Medicine; admitted to the practice of medicine within the state of Michigan in good standing and in active practice not less than five years prior to his appointment. Section 2 provides that the said County Poor Physician shall take and subscribe the constitutional oath of office and execute and deliver a penal bond in the sum of \$1,000 with sufficient sureties. Said County Poor Physician shall receive a salary of \$1,500 per annum payable monthly out of the general funds of the county and traveling expenses together with stationery and postage.

Section 3 provides that said County Poor Physician shall have general supervision over all cases of contagious diseases where the person or persons so afflicted shall become a county charge, as hereinafter set forth, to-wit; all cases of small-pox, diphtheria, scarlet fever, typhoid fever and measles, where the person so afflicted shall be quarantined by the attending physician or any local board of health but before the county shall become primarily liable for the care and maintenance of any such person or persons, they shall, by themselves, or other persons, legally liable for their support, make and subscribe an affidavit setting forth that they are not the owners of property in excess of the cash value of \$1,000 and that they have no other means of support than that of their daily labor. All such affidavits shall be immediately forwarded to the office of the County Poor Physician.

Section 4 provides that the County Poor Physician shall immediately proceed to supervise the care and maintenance of such poor persons by contracting with any reputable physician for medical attendance which shall include medicines for the patient in reasonable amounts, and shall provide a nurse if deemed necessary and advise the County Poor Commission at once, all clothing, provisions and fuel needed for the proper care of any such patient and that upon receipt of such notice, said County Poor Physician shall furnish such articles. Said County Poor Physician shall also care for and treat any poor person needing medical care and treatment and such poor person

or persons designated or referred to said County Poor Physician.

The balance of the Sections provide the machinery necessary to carry out the provisions of the Act.

In re: Senate Bill No. 372.

This bill was introduced April 11, 1929, by Senator Harding. It is a bill to prohibit the practice of medicine or advertising the practice of medicine under a false or assumed name.

This bill was referred to the Committee on Public Health April 11, 1929 and by that Committee, reported out and referred to the Committee of the Whole April 18, 1929. It was also placed on the order of third reading of bills on April 18, 1929. Passed and signed by the Governor.

In re: House Bill No. 417.

This is a bill to amend Sections 2 and of Act No. 274 of the Public Acts of 1913, being Sections 5286 and 5290 of the Compiled Laws of 1915, being an Act to provide for the medical and surgical treatment of children who are afflicted with a curable malady or deformity, etc.

This bill was introduced by Mr. Budge on April 5, 1929 and referred to the Committee on Public Health. This Committee amended the bill and reported it out on April 17, 1929, at which time, it was referred to the Committee of the Whole and placed on general orders. On April 19, 1929, the Committee of the Whole reported the bill out for third reading. On April 22, when the bill came up on third reading, it was referred to the Committee on Public Health.

This bill provides that instead of sending the children to the University Hospital at Ann Arbor for free treatment, the Judge of Probate may order that such operation be provided within the county at county expense, provided that no child shall be sent for any operation or treatment upon tonsils or adenoids unless the same presents complications of a serious or major nature, nor solely for any other minor operation or treatment.

The amendment further provides that the superintendent of said hospital shall certify to the Auditor General all cases of any operation or treatment upon tonsils or adenoids which do not present complications of a serious or major nature, also of operations or treatment of a minor nature, whereupon it shall be the duty of the Auditor General after crediting the expense thereof to the University of Michigan, to charge the same to the county from which such patient was admitted. It further provides that all such expense for transportation and care of patients shall be a charge against the county and be paid by the Treasurer out of the general fund upon order or voucher of the Probate Judge.

In re: House Bill No. 438.

This bill was introduced by Mr. John Dykstra, April 9, 1929, and is a bill to provide for treatment of patients in hospitals by practitioners of any School of Healing and to prescribe penalties for the violation of this Act.

This bill was referred to the Committee on Public Health and was reported out by them to the Committee of the Whole and placed on general orders April 18, 1929. It was reported out by the Committee of the Whole and placed on the order of third reading of bills on April 22, 1929.

The bill provides that any citizen, resident or non-resident, confined in any hospital or institution maintained wholly or in part by public funds

within the State of Michigan, shall have the right to select a physician or practitioner of any School of Healing of his or her choice and the Board of Managers of any hospital or institution shall be required to provide a practitioner other than medical for such patients as desire him.

It also provides for action in case the patient is a minor and provides a penalty of not less than \$100 nor more than \$500 or by imprisonment not exceeding six months or by both such fine and imprisonment for violation of the Act. Died in Committee of Senate.

HOW THEY VOTED

The following is the vote on the osteopath bill in the house. You will be interested to perceive the position taken by your representative and his response to your requests.

YEAS

Anderson, L. E., Northport	Harnly, A. H., Saginaw
Armstrong, J. C., Detroit	Hartman, G. T., Houghton
Bailey, J. W., Grand Rapids	Holbeck, F. C., Long Lake
Barnard, Harry E., Jackson	Hull, Oscar C., Detroit
Bartlett, C. E., Detroit	Jackson, W. F., Big Rapids
Bielawski, A. M., Detroit	Jahnke, W. F., Saginaw
Birk, W. S., Baraga	Johnson, Milo A., Greenville
Birkholm, C. D., Eau Claire	Kistler, C. E., Ludington
Bradley, M. R., Hermansville	Lawson, J. E., Royal Oak
Brady, W. B., Detroit	Lewis, C. F., Pentwater
Braun, G. A., Elkton	Look, Dexter G., Lowell
Brown, V. J., Mason	MacKinnon, A. C., Bay City
Budge, L. J., Beaverton	MacRae, R. A., Detroit
Callaghan, Miles, Reed City	McBride, James N., Burton
Callahan, John H., Detroit	McEachron, F. F., Hudsonville
Campbell, W. B., Detroit	Miller, P. J., Walled Lake
Calvert, Frank J., Detroit	Morrison, E. C., Columbiaville
Cheaney, Chas. W., Chesaning	Netting, C. J., Detroit
Clement, John R., Albion	Nichols, E. T., Detroit
Coleman, Sheldon, Lawton	Osborn, H. A., Sault Ste Marie
Culver, C. H., Detroit	Palmer, M. R., Pentwater
Dacey, Clarence J.	Phillips, F. E., Mt. Pleasant
Dacey, Vincent P., Detroit	Read, J. Herbert, Copemish
Darin, F. P., River Rouge	Reed, Charles H., Clio
DeClaire, B. H., St. Claire	Robertson, E. C., Postoria
Shores	Sargent, E. L., Levering
DeLand, C. J., Detroit	Skeels, Edward D., Whitehall
Dykstra, Ate, Grand Rapids	Smith, E. L., Grand Rapids
Dykstra, John, Muskegon	Snow, Wilber B., Comstock
Feighner, Len W., Nashville	Teagan, Robert J., Detroit
Gardner, L. C., Stockbridge	Thomson, James F., Parma
Gillett, J. E., Rapid City	Ward, W. A., Nessen City
Goodwine, J. W., Marlette	Wardell, Robert D., Detroit
Green, Alonzo, Hillman	Watson, George C., Capac
Green, William, Hillman	Wilson, Jas. M., Kalamazoo
Haight, C. F., Lansing	Speaker, Cheboygan
Hall, Luther E., Ionia	

—Total 71

NAYS

Boyle, Jesse G., Buchanan	McColl, Jr., D. J., Port Huron
Braun, Gus A., Elkton	McNitt, H. Earl, Cadillac
Bushness, A. G., Bronson	Milliman, C. H., Iron Mountain
Coates, Claude W., Munising	Peters, Walter C., Monroe
Davidson, J. B., Eaton Rapids	Rorick, John P., Adrian
Farrand, Wm. R., Detroit	Rose, Henry L., Escanaba
Fisher, Edward F., Dearborn	Thomas, W. J., Cannonsburg
Fuller, Jesse E., Alma	VanBrocklin, J. F., Marquette
Green, Joseph, Crystal Falls	Wade, Frank, Flint
Holland, John, Bessemer	Warner, J. E., Ypsilanti
Huff, Otis, Marcellus	Williams, J. M., North Adams
MacDonald, R. B., Laurium	

—Total 23

TO WHOM AM I INDEBTED FOR THE OPPORTUNITIES MEDICAL PRACTICE?

To all those who have added to recorded medical knowledge—

They were WORKERS not DRONES.

To those who have classified this knowledge and made it possible for me to acquire it—

They were TEACHERS not KNOCKERS.

To those who have helped make medicine a profession—

Their aim was SERVICE not DOLLARS.

To those who have worked to organize our Societies and those who have kept them alive—

They were HOSTS not GUESTS.

I can never fully repay these men and the least I can do for my profession is to attend its meetings

And be a BOOSTER not a KNOCKER.

—“Modified from the Michigan Dental Association Bulletin.”

LIVINGSTON COUNTY

The March meeting of the Livingston County Medical Society was held March 17th at Hotel Sumner at Fowlerville. After a very fine dinner President Huntley opened the meeting. After he had taken care of the usual business affairs of the Society Dr. Huntley then introduced Dr. George Burr of Detroit. Dr. Burr gave a very splendid stereopticon talk on “Tuberculosis Nephritis,” which was enjoyed very much by all.

The April meeting of the Livingston County Medical Society was held at the new sanatorium building, April 16th. After a very splendid dinner, President Huntley opened the meeting and after the customary business, President Huntley introduced Dr. Carl Badgley, who gave a very interesting talk on “Fractures,” after which the meeting adjourned.

CALHOUN COUNTY

The secretary's report, as printed in the Bulletin, Vol. XII, No. 3, was adopted as printed.

Under committee reports the Committee on Public Health handed in a resolution signed by the three members: H. A. Hoyt, S. K. Church and A. D. Sharp.

This called attention of the society to the fact that Calhoun county for the past two years has had one of the highest diphtheria death rates of any county in the state, and the committee urges some action which would bring about immunization of children, especially the pre-school child. It stressed the importance of the family doctor doing the work and not leaving it to public health agencies.

Upon motion of Dr. Kolvoord it was voted to appoint a committee to devise a plan for the carrying out of this work, and that the society go on record committing themselves to the task of diphtheria immunization. Carried.

The president appointed the following committee:

1. Theodore Kolvoord.
2. A. A. Hoyt.
3. L. S. Hodges.
4. G. B. Gesner.
5. K. B. Keeler.

The following bills were read and approved for payment:

Phoenix Printing Co.....	\$25.25
Shaw Printing Co.....	46.75
Flowers	5.00

The name of Dennis V. Smith's application for membership, having been approved by the Board of Censors, was acted upon and he was accepted to membership in the society.

There being no further business, the president called upon Dr. Stewart Pritchard to introduce the first speaker, Dr. Carl A. Hedblom. His talk was very practical and to the point, and was illustrated by a series of lantern slides. He was followed by Dr. Robert N. Keeton, associate professor of medicine at University of Illinois at Chicago.

Dr. Keeton gave a most interesting talk on the pathology of pneumonia and called attention to many features of this disease not usually noticed.

He urged the profession to come out of its doubting mood on pneumonia, calling attention to the metabolic disturbances in pneumonia, the hepatic function, renal function, etc., and taking note that diabetics with pneumonia act differently than ordinary pneumonia cases. He reported some very hopeful results in giving glucose and insulin. The discussion which followed gave evidence of the great interest in the subject presented.

Among the discussants were D. William Vis of Grand Rapids, Dr. W. C. Thompson of Kalamazoo, and Dr. Wilfred Haughey.

A vote of thanks was given to the essayists for their timely papers.

Members present, 78.

Visitors, 25.

Harry B. Knapp, Secretary.

BERRIEN COUNTY

The Berrien County Medical Society held its April meeting at the Four Flags hotel in Niles.

An excellent steak dinner was served to 50 members of the Society and their guests. Following the dinner a short business meeting was held at which the medical bills pending before the legislature as well as the cult bills were discussed.

The Secretary who had made a special trip to Lansing to visit the Berrien County representatives and senator, gave a brief report of the situation.

President Westvelt then called upon Dr. McCutcheon, of Cass County and a member of the State Society's Legislative Committee, for a discussion of these bills.

A motion was then made by Dr. Sowers and supported by Dr. Herring of Niles that this Society pass a resolution to the effect, that the Berrien County Medical Society hereby urges that the representatives from Berrien County and the senator do all in their power to have the medical bills reported out of the health committee of the house of representatives for favorable action, and that they vote “No,” on any cult legislation that is reported for vote. Dr. Bartlett of St. Joseph in the discussion gave a strong talk in opposition to cult legislation and urged that all members of this Society do their utmost to influence the legislature to oppose such bills.

Announcement was made of the next meeting which will be held in Niles as a joint session with the Berrien County Bar Association. Entertainment will be provided and a prominent speaker will give a talk on medical jurisprudence.

Following the business meeting the Society listened to an excellent talk by Dr. Preston Hickey, professor of Roentgenology at Ann Arbor, on bone conditions in children.

His talk was illustrated with lantern slides and dealt first with a few rare and obscure bone diseases of deformity, illustrated with photographs and X-ray pictures, then carried on his talk with discussion of rachitis, syphilis of the bone congenital and acquired, scurvy, disease of the hip joint, the spine, etc.

The paper was interesting and the slides were excellent, and in the informal discussion that followed various bone pathologies were discussed in an informal way by Dr. Hickey and members of the society.

Accompanying Dr. Hickey on his excursion from Ann Arbor was Dr. Benton also of the X-ray laboratory at the University hospital.

The Society felt that they were indeed for-

tunate for the opportunity to listen to Dr. Hickey and were grateful to him for his long trip to this side of the state.

The Berrien County Society united with the Berrien County Bar Association for their May meeting. The two societies gathered at the Four Flags hotel in Niles on Friday evening, the 10th of May in their annual blossom banquet. Plates were laid for 60 and an excellent special dinner was served.

During the meal the members were provided with entertainment by a professional singer, an extremely good looking lady who sang rather intriguingly to a few of the "Daddys" much to the amusement of the rest of the crowd.

With the cigars and coffee, Attorney A. P. Cady of Benton Harbor, introduced the toastmaster of the evening the Hon. Victor M. Gore, a prominent member of the Berrien County Bar Association and regent at the university.

Attorney Gore after a short talk introduced the first speaker of the evening Attorney Lester Moll of Detroit, partner of H. V. Barbour of Detroit who was unable to be present.

Mr. Moll gave a very interesting talk on medical jurisprudence quoting excerpts from supreme court decisions, giving the physicians advice on how to avoid malpractice cases, and summing for the lawyers the conditions and facts necessary for a successful prosecution of such cases. His talk was addressed more to the physicians explaining the laws, and conduct of cases, their rights and obligations by expressed or implied contract with the patient.

The next speaker of the evening was then introduced and he directed his talk to the lawyers. This was Dr. F. B. Tibbals of Detroit, chairman of the medico-legal board of the Michigan State Medical Society. Dr. Tibbals told the lawyers what the physicians had to contend with in treating patients, idiosyncrasies, fractures and assault cases. His talk was eagerly listened to by both lawyers and physicians, and his presentation of the physicians position was certainly a masterpiece for such a mixed group. His plea for a better understanding between the two professions was worded in such a way, that the writer would be willing to wager, that it will be quite some time before any of the legal profession hearing this talk would be willing to accept a case against a physician.

The Berrien County Medical Society is indeed greatly indebted to Dr. Tibbals for his talk. His attitude and ability of expression shows that he is certainly the man for the position which he holds in the State Society.

This meeting was apparently a great success not only from the fellowship expressed between the two professions, but in attendance entertainment, and medico-legal knowledge gained.

W. C. Ellet, Secretary.

RADIOLOGIC DEPARTMENT IN HOSPITAL

Charles L. Martin, Dallas, Texas, contends that good radiologic service depends above everything else on the presence of a competent radiologist. An increasing number of hospitals are coming to regard their radiologic departments merely as sources of income. In many of these institutions the profits are obtained by eliminating the expense of trained supervision or by reducing it to such a minimum that the work suffers severely. This tendency seems to be most marked in hospitals controlled entirely by laymen. Naturally their

interest leans toward the financial rather than the scientific development of the institution. The highly trained radiologist undoubtedly finds his greatest field of usefulness in the hospital, but bright young men cannot be induced to prepare themselves properly for this field unless they are assured a position of dignity and an income comparable to that expected in other specialties requiring a similar amount of training. The truly ambitious man is happy only when he receives a fair share of the fruits of his labors. The surgeon who uses the operating rooms, surgical instruments and anesthetic equipment belonging to the hospital receives a fee for his work from the patient, and the hospital makes a charge for the use of the apparatus. A similar plan in radiologic departments would bring many good men into this field of work. When the radiologist is encouraged to build up a private practice in the hospital, and this applies especially to therapeutic work, he is more likely to regard his hospital connection as a field of endeavor worthy of a number of years of preliminary study. He has a future of some promise so long as he continues to apply himself and to become more proficient in his work. Hospital departments of note usually derive their fame from the activities of one man, and as his reputation spreads the whole institution inevitably profits thereby. Many hospitals in which poor radiologic work is done have a constantly changing personnel in their radiologic departments. One radiologist after another undertakes the work on a small salary with the intention better is offered. There is no incentive leading to the best type of endeavor in such a department and nothing other than the most meager routine procedures are carried out. It is probably true, as some have contended, that the radiologic departments in this country far outnumber the properly qualified radiologists. However, adequate facilities for postgraduate instruction are now provided in many of the larger teaching centers, and an ample supply of highly trained men will appear rapidly so soon as the governing boards of hospitals see fit to raise their standards and demand high grade talent in their radiologic departments.—Journal A. M. A.

GREEN ASPARAGUS CONTAINS VITAMIN A

Thick, white asparagus are rather more fashionable than their green brothers, but they are lacking in vitamin A. So if you rely on asparagus for your vitamins, you must eat the green variety, or you will not be getting enough vitamin A in your daily diet.

Experiments carried out by Prof. J. W. Crist and Prof. Marie Dye at the Michigan State College showing that green asparagus, whether freshly cooked or canned, contained enough vitamin A to promote health and growth when fed daily to white rats. These animals are the ones regularly used to test the vitamin content of foods. When they were fed the blanched or white asparagus without any other source of vitamin A in their diet, they died as rapidly as on the control diet containing no asparagus and also no vitamin A. Evidently blanched asparagus gives no stimulant to health and growth.

Professors Crist and Dye believe a relationship exists between vitamin A content and the development of chlorophyll, the green coloring matter of plants. Further experiments will be necessary to prove this theory, however.—Science Service.

THE DOCTOR'S LIBRARY

Offering Suggestions and Recommendations

THE WRITING OF MEDICAL PAPERS—Maud H. Mellish-Wilson, Editor of the Mayo Clinic Publications. Third Edition, revised. 12 mo. of 184 pages. Cloth, \$1.50, net. W. B. Saunders Company, Philadelphia and London, 1929.

Every physician who writes medical papers will find this little work of value. It deals with the subject of usage, vocabulary, punctuation, the construction of medical papers, preparation of manuscript and numerous other topics which concern the relations between writer and publisher. We know of no work better designed to make editors good natured.

PHYSICAL THERAPEUTIC TECHNIC—Frank Butler Granger, M. D., Late Physician-in-Chief, Department of Physical Therapeutics, Boston City Hospital; Director of Physiotherapy, United States Army; Medical Counselor, United States Veterans Bureau; Member of Council on Physical Therapy, American Medical Association, Instructor of Physical Therapeutics, Harvard Medical School; Assistant Professor of Physical Therapy, Tufts Medical School. With a Foreword by William D. McFee, M. D., Boston, Mass. Octavo volume of 417 pages with 135 illustrations. Cloth, \$6.50, net. W. B. Saunders Company, Philadelphia and London, 1929.

This work, according to the author, is intended for the physician who has installed a limited equipment and not for the specialist in physical therapy. The monograph is the result of personal experience extending over a quarter of a century. We have here described not only the different kinds of physical therapy, but also their indications. The work will be found invaluable to the general practitioner or to the specialist who uses physical therapy as an adjunct to other therapeutic methods.

THE SURGICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month). Volume 8, number 2. (Chicago Number—April, 1929) 243 pages with 70 illustrations. Per Clinic year (February, 1929 to December, 1929). Paper, \$12.00; cloth, \$16.00. Philadelphia and London.

The opening chapter of this volume deals with the clinics of Dr. Arthur Dean Bevan of the Presbyterian Hospital on, "Acute Abdomen," a very interesting subject and of importance to all surgeons. The author deals with the differential diagnosis of the subject.

The clinics of Dr. Carl A. Hedblom, on "The Surgical Treatment of Pulmonary Tuberculosis," an interesting subject that has been attracting attention throughout the civilized world.

This volume contains several other interesting clinics from men of note, as the clinics of Dr. A. H. Montgomery on "Pseudo Appendicitis in Children," which is of special interest to the pediatrician as well as the surgeon. The above clinics are only a random selection from the 20 equally interesting which are included in the volume.

HANDBOOK OF PATHOLOGY—W. D. Halliburton, M. D., LL. D., F. R. C. P., F. R. C. S., Emeritus Professor of Physiology, King's College, London, and R. J. S. McDowall, M. B., D. Sc., F. R. C. P. (Edin.) Dean of the Faculty of Medicine and Professor of Physiology, King's College, London. Eighteenth Edition. Contains over five hundred illustrations in the text, many of which are colored, and three colored plates. P. Blackiston's Son & Co., Philadelphia, Pa., 1929.

This edition has been completely revised and reset. The sections on the "Automatic Nervous

System," "Speech," "The Control of the Circulation," "The Carriage of Carbon Dioxide," the "Maintenance of Body Neutrality," "Vitamins," "Ductless Glands," and "Intermediate Metabolism," are for the most part new. The section on the "Nervous System" has also been practically rewritten. The history of this book is very interesting. It is a lineal descendant of Kirkes Handbook of Physiology which many of us studied during our early medical college years. The book had its birth in St. Bartholomew's Hospital, London, 81 years ago, but it has been renewing its youth ever since. By the year 1867, it had attained the sixth edition; the ninth in 1876. Professor Halliburton undertook the revision in 1896. Up to the present twenty-eighth edition 116,000 copies have been published. Owing to the fact that the book had become entirely a new one, the name Kirkes was dropped and Halliburton's Physiology became its recognized title. The work under present authorship will be found very convenient and readable. We know of no more concise and authoritative handbook on the subject than the present volume.

DISEASES OF THE THYROID GLAND—A. E. Hertzler, M. D. Second Edition. Price \$7.50. C. V. Mosby & Co., St. Louis, Mo.

It is a trite saying that of the making of many books there is no end. The text reminds us of that fact. As a text there is nothing to criticize except that it presents nothing that is new. There are plenty texts upon the book-sellers shelves hence why another, on this subject. Much space is devoted to anatomy and pathology but imparts nothing that has not already been written and discussed. Many, many times. The illustrations of certain types of cases are interesting but are no different from those encountered by any active surgeon. The author is evidently well versed and a diligent student. His effort reflects that and also time requisite in preparing his manuscript.—We regret we can say no more.

DISEASES AND DEFORMITIES OF SPINE AND THORAX—Arthur Steindler, Iowa University. Price \$12.50. C. V. Mosby Co., St. Louis, Mo.

Now here is a text of exceptional and real merit. It is a coherent, sequential development of the subject. With due importance stressed on outstanding factors that must be observed by the conscientious surgeon. Excellent illustrations clarify the text and fixes principles. It is indeed the clearest and most thorough presentation of the subject yet come to our attention. This text deserves intrinsically a place in every surgeon's and orthopedist's library.

CHRONIC ULCER OF THE LEG

Three hundred cases of chronic leg ulcer have been treated by Joseph W. Sooy, Baltimore, with a modified Unna's paste. Complete healing has occurred in 85 per cent and 15 per cent show satisfactory progress. The formula of the paste that Sooy is using is glycerin, 1,900 Gm., 1,425 cc.; gelatin, 625 Gm.; water, 1,900 cc.; zinc oxide, 250 Gm.; phenol, 1.50 per cent of total volume.

making a total of 4,675 Gm. or 10 pounds, which is sufficient for seven dressings. After its preparation it is placed in a double boiler and heated to just above body temperature, at which point it becomes fluid and has a viscosity not unlike that of ordinary paint. In this form it is applied with a paint brush directly to the skin of the leg from the base of the toes upward to just below the knee. It is to come into intimate contact with the ulcer, no preliminary dressing being necessary. A simple spiral bandage without crosses or reverses is applied over the paste, and then more paste is applied over the bandage. This is repeated until there is a total of three layers of bandage and four layers of paste. The final preparation, when cool, becomes rubbery hard and makes a pressure bandage which, because of its slight porosity, will allow escape of the discharge from the ulcer. A maximum of one hour a week is required for the application of the bandage. The length of time that a single bandage may be left in place depends on the amount of edema and the amount of exudate from the granulating surface. A light gauze bandage may be placed around the more permanent paste bandage and the patient instructed to change the former when necessary. In this manner the exudate which escapes through the pores of the paste will be satisfactorily cared for and the dressing will always present a clean and dry external surface. A paste bandage which has been cared for in this manner has been left in place for as long as twelve weeks, and when at the end of such a period the bandage has been finally removed, the ulcer has been found in excellent condition, sometimes completely healed. The bandage is suitable for use in any climate. When the temperature is very high it may be dehydrated and fixed with a solution of 85 per cent alcohol, a diluted "solution of formaldehyde U. S. P." (6 per cent), and 9 per cent ether. This solution is applied by simply sponging the bandage. This form of treatment has also been used in cases of varicose veins with considerable relief on the part of the patient and marked lessening of the edema of the ankles and lower leg. Sooy has also used it in two cases of unhealed secondary burns with very satisfactory results.—*Journal A. M. A.*

BLOOD PRESSURE AND RESPIRATION

For some time in a few cases of hypertensive disease of the so-called essential type Israel Rappaport, New York, has succeeded in maintaining marked reductions of blood levels by deep exercises. A number of hypertensive patients were poor breathers. They showed what Rappaport terms "the low breathing habit." The features of this phenomenon are a markedly reduced respiratory rate, pulmonary expansion far below the average, and diaphragmatic excursions of a very restricted type, without any evidence of pulmonary disease to account for it. Rappaport found that it was possible to correct this anomaly by a concentrated effort at deep breathing exercises carried out repeatedly, daily, over a period of several months. Considerable increase of spontaneous pulmonary expansion could be obtained in some cases after several weeks of conscientious breathing exercises. Reductions of blood pressure levels—an average of 30 per cent of the pathologic surplus—were thus obtained and maintained, in some of the cases for nearly two years. In some cases it was necessary to interrupt the patient's life work temporarily for the purpose of

carrying out a successful regimen. None of the patients have thus far reached the point of normal respiratory expansion or normal blood pressure level. In some of the cases hypoventilation is still a marked feature, though improvement is noticeably progressing. Some of these patients had other symptoms associated with hypertension; especially were gastro-intestinal symptoms complained of, all of which yielded promptly to the treatment.—*Journal A. M. A.*

THE STATUS OF RADIOLOGY IN AMERICA

Arthur U. Desjardins, Rochester, Minn., asserts that some physicians are devoting their time exclusively to diagnostic roentgenology, some to both diagnostic and therapeutic roentgenology, some to radium therapy, some to therapeutic radiology, while only a minority have become proficient in, and practice, general radiology. This state of affairs in private practice is reflected in a corresponding lack of sound organization even in the best hospitals, clinics and other institutions for the care of the sick. The inevitable consequence is that, with the exception of a small number of exceptionally qualified experts, the general level of the specialty is not high, and workers in this field may often be heard to bewail the faint respect with which their efforts are viewed by their fellow physicians in other specialties. The effect of the general attitude of the profession is shown further by the common practice of hospitals and private physicians of employing not a professional specialist in radiology but a nonprofessional technician, who often is expected only to make roentgenograms, the interpretation of which is reserved to the professional employer or to the members of the hospital staff, but whose opinion is sometimes accepted and acted on by the physicians who employ him. Another factor in this tendency has been the gradual simplification of construction and manipulation of the apparatus required to generate roentgen rays. A deplorable result of the present situation is that, with some exceptions, so few young physicians of real caliber are willing to enter the field of radiology as a life work. Several factors have conspired to produce the existing conditions: (1) the circumstances that have surrounded the development of medical radiology and the failure to organize its various phases along sound lines; (2) the lack of thorough fundamental training in radiology, and (3) the unfortunate loss of contact with clinical medicine by which radiologists are handicapped. It attempting to improve the present situation, the first and most important step must be to take measures to attract to the field of radiology young physicians of the highest caliber. It is obvious that the quality of the work rests not so much on apparatus and machines as, primarily, on the intelligence, ability and training of the physician. Adequate training in radiology must be a postgraduate function, but if it is to accomplish its purpose and exert a real influence, such instruction must be raised to a much higher place than that of the majority of postgraduate courses available today. Radiology should be brought into more intimate relations with clinical medicine and surgery, and these relations should be so adjusted that the radiologist or roentgenologist may be kept in close contact with clinical problems. His interest in such problems should be stimulated by every possible means and no longer should his knowledge of clinical medicine be allowed to atrophy by his being segregated or by his segregating himself.—*Journal A. M. A.*